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Prehistoric America and its Art.

THE questions of anthropological history which are raised in the Marquis de Nadaillac's work on "Prehistoric America," now presented in an English translation,* though they are of the deepest interest in their own way, are not those which specially concern us here. The interest of the work to us lies in the many examples of what may be called prehistoric American art with which the pages of the work are filled. The expression "prehistoric," of course, has a different meaning in connexion with the American continent from that which we attach to it when speaking of European countries. History in regard to America is comparatively but of yesterday; and that which is "prehistoric" there may be contemporary with European epochs on which almost the full light of history shines. But this does not lessen,—it perhaps emphasises,—the interest and significance attaching to the existence of types of art work and of ornament there differing little in essentials from those with which the researches of Schliemann and Cesnola have familiarised us in the European world.

Still, we will not pass over without a word the author's first chapter, with the somewhat sensational title, "Man and the Mastodon." There is something weird in the mere conjectures arising out of the stray observations of various investigators in American palæontology, as if the history of a dream were written down by fits and snatches. We have glimpses of a continent thickly populated with races of the most varying degrees of civilisation, almost up to or at the time when the Spaniards burst upon the New World, and sent a blight over its inhabitants. But, far before this period, we have glimpses, afforded by this or that discovery of bones and flint implements, of an early world, nearly, if not, identical with the early world of Europe; of men contending with the rudest of weapons against monstrous and long-ago-extinct animals, alike on American as on European soil. "We are in a position to assert that the earliest vestiges of man in America and in Europe resemble each other exactly; and by no means the least extraordinary part of the case is that in the New, as in the Old World, men began to struggle for existence with almost identical means." The flint implements of Mexico do not differ appreciably from those of Kent's Hole. "Our early ancestors had to struggle with the bears and lions of the caves, with the terrible *machairodus* with tusks as sharp as the blade of a dagger, with the mammoth and the *Rhinocerus tichorinus*. . . The first Americans, too, were contemporary with gigantic animals which, like their conquerors of Europe, have passed away never to return." The bones of the mastodon have been found surrounded by flint arrow-heads and lance-heads by which men who were perhaps but one degree above brutes had attacked him, probably when he was already from some cause partially disabled. Was there in those far-away ages land communication between the American and European continents? Or did similar causes and conditions produce similar effects? The question becomes more significant when we notice the same kind of parallelism between Europe and America in far later times; when we find the style and pattern of vases the same in essentials on both sides of the Atlantic, and notice the Greek key pattern in its finished form on the side of a jar found on the banks of the San Juan (see fig. 1, next page).

As to the date of this and many other such remains on the American Continent it seems difficult to form any precise estimate. One reflection that suggests itself on finding these striking resemblances in ornamental work all over the globe is that, if one may so put it, everything is a great deal older than we used to be in the habit of thinking. There must have been a very long period for that pattern which we used to regard as especially Greek to have had time to be adopted and used over so large a portion of the earth's surface and at such widely separated localities, and the idea is not unnaturally suggested that possibly, in accordance with the recognised tendency of arts and civilisation to move westward, some of the details of Greek and Assyrian art might have had their origin in what is now the New, but was then the Old, World. Whatever connexion there is between the pattern on this San Juan jar and that to be found in Greek work, must have been before and not after the Greek period. There can have been no communication between the continents within historic times: we know not what there may have been in prehistoric times. Our author, indeed, observes that the pottery manufactured in America was very superior to that of the same period of development in Europe; "it is also probable that many of the numerous fragments of which we were unable to fix the dates belong to very remote epochs. They were rarely associated with metal objects, and the only weapons of the mound builders were hatchets, knives, and arrows of stone, which resemble alike in form and workmanship those of Europe, dating from the period to which archæologists have given the name of the stone age." We must, therefore, assume the immense (comparatively speaking) antiquity of such a feature as the Greek key pattern, and its slow percolation westward around the globe; or we must assume that the same causes produce the same effects in early civilisation, and that there is an inherent tendency in mankind to the production of certain forms of ornament. This is not likely to be true of any except forms of phallic origin, which would, of course, have the same general characteristics everywhere; and the idea of this simultaneous and unconnected production of special forms of course almost includes the idea of simultaneous and unconnected development of mankind in the two continents, which anthropologists will by no means admit of. We must fall back on the idea of the remote antiquity of what we are accustomed to think of as Classic patterns, and of a far more widespread and universal use of these than has been generally recognised. The fact is, that the more we study remnants of early or prehistoric art in whatever quarter of the globe, the more is brought home to us the fact of the unity of the race of man and the general similarity of semi-barbarous art and science all over the world. We can only account for this by allowing great antiquity to these common forms of ornament, and leaving them ample time for their slow dissemination over the globe in days when, though communication were slow, change and development of ideas were still slower. Then came the historic period in which fancy grew and developed more quickly, and each more civilised subsection of the race developed a special art of its own, with "excellent differences." And now, in these days of steam, strangely enough, the intercommunication is too fast to allow of the special developments going on undisturbed, and we are again in a way to have the same form of art going on all over the world; Japan and Birmingham are doing their best to assimilate, and India has shaken hands with South Kensington.

The races who have left their mark on American soil, so as to be visible to the present time, are very various, and in the book before us are considered under several groups. The first are the "mound-builders," the makers of numerous vast mounds arranged in more or less symmetrical forms on plan, or sometimes in irregular but distinctly marked forms, which seems to have a symbolical meaning. The Marquis de Nadaillac comes to the conclusion that the making of these mounds extended over a great many centuries, and that the people who made them were in essentials the

* Prehistoric America. By the Marquis de Nadaillac. Translated by N. d'Anvers. Edited by W. H. Dall. With 219 Illustrations. London: John Murray. 1885.

Fig. 1.

Fig. 2.

Fig. 6.

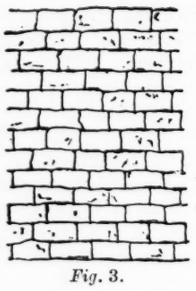


Fig. 3.

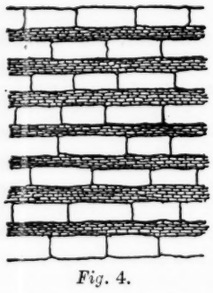


Fig. 4.

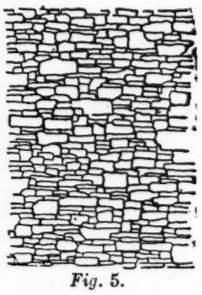


Fig. 5.

same with the now fast-disappearing North American Indians. The making of some of these mounds appears to have been as late as the earliest European exploration of America, while the pottery associated with others seems to carry them back to a probably very remote era. The most interesting portion of the present work, from the point of view we are now taking, is the chapter on the pottery, weapons, and ornaments of the mound builders. In the ordinary vases we find a general similarity in shape to much ancient pottery of the European world, though the most characteristic shapes found at Hissarlik and Cyprus, such as the double-necked vase or double vase united by a band, do not appear. Many of the ordinary shapes are exceedingly "classic" in outline, but it may be observed that such forms, with the globose body and long neck with spreading rim, are really the natural outcome of the desire to obtain practical suitability for the purpose, on the same principle which Viollet-le-Duc illustrated so happily in his lectures in regard to the forms given to metal vessels for holding liquids. But in regard to what may be called the curiosities of design in earthenware, the use of human and animal forms as a portion of the vessels, we meet here again with all the same kind of fancies with which we have been familiarised in the ancient pottery of Europe; animals with chimneys on their backs, vases and bowls with animal faces, and bottles combined with female forms in almost exactly the same manner as in some of Dr. Schliemann's examples. One form of utensil there is which is more peculiar to American remains, the pipe-bowl, in which also the forms of animals are largely introduced; a bowl in the form of a wild cat, another representing a woodpecker, another a heron with a fish in its mouth; a hole in the back of the model forming in each case the bowl of the pipe. This kind of bad taste, for such we hold it really to be, has been apparently universal among the misguided sons of men. We did, indeed, hear it defended by a modern decorative artist the other day, who, in answer to our expressed opinion that a butter-boat in the shape of a cow with a lid in the back was bad taste, whenever and by whomsoever it was done, half assented, but with the saving clause (introduced as an afterthought), "at least, unless the cow is *very* well modelled." That is a possible view of the matter, no doubt, but we adhere to the broad principle, whether among American mound-builders or in Bond-street. One vessel of the mound series, in which a serpent is combined with the design in a more rational and artistic manner, we give an illustration of (fig. 2).

There are two other great divisions of American art-remains dealt with in the book before us, those of the "cliff dwellings," and the very different and much more elaborate remains of Central America. The cliff buildings, found in the valleys drained by the rivers San Juan, Rio Grande del Norte, Colorado Chiquito, and their tributaries, may be regarded as the antithesis, among human habitations, of the lake dwellings. The inhabitants of the latter sought security by pushing themselves out horizontally from the shore, the cliff dwellers sought it by ascending vertically from the ground to dwellings on the sides and tops of apparently inaccessible cliffs. In some cases these were obviously approached by steps cut in the rock, as a frozen snow slope is now ascended by the Alpine climber; in some it is a matter of puzzle how access was ever obtained. Habitations so placed speak vividly of the state of dread of one another in which the ancient people who contrived them must have lived. It is possible, however, that these were only fortresses for occasional retreat, not for ordinary habitation, though they seem wonderfully numerous on such a supposition. "Imagine, says a recent traveller, the dry bed of a river shut in between steep inaccessible rocks of red sandstone, and a man standing in that bed looking up at the habitations of his fellow-creatures perched on every ledge. . . . . The cliff houses take the form and dimensions of the platform or ledge from which they rise. The masonry is well laid, and it is wonderful with what skill the walls are joined to the cliff and with what care the aspect of the neighbouring rocks has been imitated in the external architecture." The collections of such dwellings, forming a series of small square apartments, were called by the Spaniards "pueblos," a name signifying a village or collection of homes, and by which title they are now generally referred to by travellers and archæologists. We give an illustration of some of the masonry (Figs. 3, 4, 5) used in the walls at the large Bonito Pueblo in the Chaco Valley; and this again has a curious interest from its scientific bonding and its resemblance to European types of masonry. The art-relics found in connexion with these dwellings include pottery, of superior make to that of the mounds, and occasionally rather elaborately ornamented, and various drawings on the rocks of men and animals, not unlike those of the South African bushmen, some illustrations of which are placed side by side with the American examples for comparison.

The far more elaborate remains of Mexico and the adjoining portion of Central America, which plainly speak of a rich though barbaric civilisation (if such a contradiction in terms may be allowed), are described at length by the Marquis de Nadaillac, with the aid of a considerable number of illustrations, and accompanied by what we should describe as a great deal of romancing, or possible history built on remnants of blind tradition. This must be taken with a great many grains of salt; but the actual description and illustration of many of the ruins and sculptures is of much interest, and forms a very good outline of the subject for those who wish for some general information thereon. Nothing in the whole range of architectural antiquities is more extraordinary than these artistic remains of the ancient inhabitants of Mexico, so elaborate and profuse in their sculptured decoration, so barbaric in style in most instances, and which have left us so entirely without reliable information as to the people who executed them. There is a certain parallel between these Mexican ruins and those of Cambodia; both are sumptuous and barbaric remains found in the midst of wild forest, the witnesses of some race in its day rich and powerful, but which has fairly died out off the face of the earth; both strongly recall Indian types of art in many particulars; but the place to be assigned to the builders of Palenque and, Uxmal and Yucatan, in artistic and general history is perhaps a more bewildering puzzle than that presented by Cambodia. For in the midst of the generally Oriental characteristics of these buildings, we come on quasi-Greek ornament over and over again. In the *Casa del Gubernador* (so-called) at Uxmal we find a building profusely ornamented on its exterior wall surfaces, at least on the upper portion of them, which is divided by a very classic-looking cornice from the plain basement walls, and above this is what our author calls a "frieze" (though we should not give it that name,—it is a wall-surface) "presenting a series of curved lines, arabesques and ornaments of every kind of execution, as capricious as it is grotesque. Amongst these ornaments Greek frets are prominent; this type of ornament, so common for centuries in Europe, furnishes yet another proof of the similarity of the genius of man, everywhere and at all times, as manifested in the least important of his works." Why "least important" we do not quite see; "*even* in the least important" is probably meant; but this does seem to be

the explanation in this case. For these are not remains that belong to any extreme, remote, and really prehistoric antiquity. The times in which these Mexican buildings were executed, though "prehistoric" as far as regards America, were not prehistoric in the wider sense: no geographical connexion between America and Europe existed, other than at present exists. Yet we have not only this large use of the square fret, in much the same way as the Greeks used it on buildings, but we have a more curious coincidence, not noticed by the author, in the illustration of a portion of the elaborately-carved door-jambs from what is called "the Castle" at Chichen-Itza, which we reproduce (fig. 6). This is obviously one of the later works of its class, and must have been executed since the Christian era, and by people who could at that time have no possible communication, one would imagine, with Europe. Yet there, as an ornament on the helmet of the figure, is the Greek honeysuckle type in almost complete and finished form. What is the solution of that puzzle? Is the honeysuckle ornament also, like the square fret, a natural proclivity of man in all parts of the world?

These are only a small portion of the considerations suggested by this book, which, though not written in a specially scientific tone, ought to be very useful and interesting as bringing together in a readable form, and with numerous illustrations, the main outlines of one of the strangest chapters of archæology.

RECENT EXCAVATIONS IN THE PEIRÆUS.

THE excavating work undertaken at Athens during the past year has issued in the discovery of a building the purport of which is at present somewhat problematic. A full account of the work done, and the conclusions so far arrived at, appear in the Τεῦχος πρῶτον καὶ δεύτερον of the Ἐφημερὶς ἀρχαιολογική for 1884, which, like most important archæological periodicals, appears as a rule from six months to a year late. Some workmen engaged in digging for the foundation of a new theatre lighted on a whole collection of ancient walls. Notice was given to the Government, and at once measures were taken to lay the whole site bare. It was at first hoped that the building found was a temple to Dionysos, but, as the work went on, it became abundantly evident that the ruins belonged to no temple at all. What appeared was the foundations of what seemed to be a large dwelling-house and a large courtyard surrounded by a colonnade. The modern inhabitants of Peiræus are not over-zealous about antiquities, and were not, it seems, to be baulked of their new theatre. The work of building it has had to go on, but under careful restrictions as to the preservation of as much as possible of the old structure. A plan of the foundations was promptly made by Fabricius and Dörpfeld, and this plan appears in the 3rd Heft of the *Mittheilungen* of the German Institute at Athens for 1884; to the plan are added drawings of many architectural details. Dr. Dörpfeld says that the building consists of an entrance-hall, an atrium, and a number of lesser rooms, to which is attached the great court, surrounded by the colonnade. The arrangement is best seen on Dr. Dörpfeld's plan. In the entrance-hall the basis of an altar has been found, the pavement of the atrium is admirably preserved, and at the east end the remains of a large cistern. At the south-west corner is a deep well. Now, the mere discovery of an ancient Greek dwelling-house would be a matter of subordinate interest, but the puzzle about these foundations is that they are in evident connexion, by means of steps which still remain, with the large court-yard surrounded by the colonnade. What is the object of this, and what the purport of its juxtaposition with the dwelling-house? Probably the mystery would never have been solved but for the happy discovery of some inscriptions. These inscriptions are published, with certain emendations, and discussed by Dr. Köhler, in the same number of the *Mittheilungen*. They appeared first, but without interpretation, in the Ἐφημερὶς ἀρχαιολογική, 1884, p. 39. Fortunately from these inscriptions (three in number), a clear picture of the purport of the collection of buildings can be gathered, and their date is in one direction secured. The inscriptions, Dr. Köhler shows, place us in the first half of the second century B.C. They relate to an association of worshippers of Dionysos, made up of well-to-do Athenian citizens, and at one time fifteen in number. The head and priest of this association was at the time of the inscriptions a certain Dionysios, and the office appears to have been hereditary. It is the private house of this Dionysios that has been discovered. He, it appears from one of the inscriptions, had deserved well of the god. He had founded and adorned a temple close to the spot where the inscription was set up. Out of his wealth he had dedicated costly vessels, and, finally, a second statue of the god. In reward for this heroic honours are decreed him after death by the Association, or, as it is practically called, the "thiasos." The plinth in which the stelæ with these inscriptions were set up has been found; the conclusion, therefore, is certain, that somewhere near to that plinth must have been the Temple of Dionysios. It is mentioned in one of the inscriptions that Dionysios erected a building for the accommodation of gatherings of the Association. This is, in all probability, the colonnade that has been discovered. It has been suggested that he built it round the temple. The temple, then, has to be looked for in the courtyard round which the colonnade runs. It will be the work of the present year to lay bare this court and verify the conjecture, a work the results of which will be eagerly looked for.

NOTES.

THE speech of the chairman at the Brighton Railway meeting gives unpleasant foreboding of a war of rates between the three southern and eastern railway companies. There is a tendency, when such strife is pending, to regard the interests of the public as served by the sacrifices made by the companies. It rarely happens that such can be permanently the case. It is true that the competition of the London and North Western, the Midland, and the Great Northern lines, has reduced the first-class fares by more than 30 per cent. as compared, for example, with those of the Great Western. But the great length of these lines is such as to afford a gross revenue of 14,000*l.* per annum on a capital cost per mile of 120,000*l.* Taking the three together, and with a sound system of accounts, both the shareholders and the travelling public might find their interests safe under such terms. If the traffic were exclusively in passengers and goods, without minerals, the net revenue would be more than eight per cent. all round, at actual freights and fares. But the enormous cost of the London termini, spread over only 850 miles of line, has raised the aggregate cost per mile of the three south-eastern lines to considerably more than double that of the three northern trunks. The aggregate gross receipts of the three short lines, in 1878, were only 6,230,000*l.* on an aggregate capital of 88,000,000*l.* The low co-efficient of working cost which the absence of mineral traffic enables the London and Brighton, and the South-Eastern lines to maintain, has been such as to compensate to some extent for the high cost of construction. But, if war break out between the lines, working percentage will increase, while gross revenue will diminish. A mere glance at the above-stated amounts of capital and revenue will be enough to show how small a chance of dividend would then remain to the owners of the 26,000,000*l.* of ordinary capital in the three lines.

COLONEL A. S. JONES, V.C., and Mr. Bailey Denton have addressed a rather notable joint memorial to Sir Richard Cross in reference to the purification of the Thames. They refer to a remark in the Commissioners' Report that "some process of deposition or precipitation" near the present outfalls might possibly be adopted "to separate the solid from the liquid portion of the sewage, but that "even then the liquid so separated would not be sufficiently free from noxious matters to allow of its being discharged as a permanent measure" without being subsequently purified by application to land. They suggested that if such land could not be found near the present outfalls the sewage liquid should be carried down to a point lower than Hole Haven, at the same time suggesting that the separation of solid and liquid might perhaps be better carried on at that lower point. In their report the Commissioners also refer to the fact that Canvey Island, which is separated from the mainland and the Thames by Hole Haven Creek, had attracted the notice of several experienced engineers, who had sketched out plans for the clarification of the sewage at this place, and the Commissioners added, "we may fairly infer that a good and practicable scheme of the kind might be devised."

IN accordance with the above suggestions of the Commissioners, Colonel Jones and Mr. Bailey Denton have boldly offered to take in hand the London sewage at Canvey Island, if Sir J. Bazalgette's proposed new outfall sewer to Thames Haven be extended one mile further on to Canvey Island. They propose to clarify the sewage upon the island, by mechanical deposition and chemical precipitation, and to apply the liquid to the land by filtration or irrigation so as to produce an effluent that may safely be admitted into tidal waters: the solid portions to be converted into saleable manure as far as possible, or to be buried in the soil or burned. The island is at present a low flat protected by sea walls, and the memorialists think that it has capacity to receive the sewage of London for 100 years to come, on the method by which they propose to treat it. Their terms are a subsidy of 110,000*l.* a year for forty years (less than 1d. in the pound on the rateable value of the metropolis) with the proposal that the works shall then become the property of the Board of Works without further payment. Here is a spirited offer to slay the modern dragon, and we hope the knights who make it will at least meet with serious consideration at the hands of the authorities.

IF there is one thing upon which the English nation prides itself, it is its practical and matter-of-fact character, and its readiness to deal with any inquiry of a utilitarian nature. It is all the more surprising, therefore, that until now the urgency of overhauling and conserving our supplies of timber has never been seriously acted upon, although frequently pressed upon the notice of the powers that be; and we hail with pleasure the appointment of a Forestry Committee, under the presidentship of Sir John Lubbock. The time is almost gone by for the preservation of English forests, for, with a few exceptions, they are things of the past; but, as we have no reason to expect that the world will end with us, we are bound to consider our successors, and to take every possible means to renovate the tree treasures which we have so recklessly neglected. Nor is it England only that has been despoiled, but, by our ignorance and carelessness, we have sent forth Englishmen to our colonies who have done the same thing, though in this case earnest attention has been drawn to the subject, before it is too late. In New Zealand the valuable Kawri pine was fast becoming exterminated, until Dr. Hector pointed out that the average annual destruction varied from 23 to 28 per cent.; while, throughout the whole of Australia, the evils of rapid disforesting are plainly manifested in increased dryness of climate, more bush-fires, and longer droughts. It is a singular fact that forestry education has been more neglected here than any other branch, and that we do not appear to be aware of its immense importance. Not so our friends across the Channel. France possesses two or three special forestry schools, besides several agronomic establishments in which

forestry is taught. Austria has nine schools, the chief of which, the Imperial High School at Vienna, has six professors and 329 students; and are three in Prussia, and one each in Saxony, Wurtemburg, Baden, Bavaria (with six chairs of forestry in the University of Munich), Hesse-Darmstadt, and Saxe-Weimar. Russia has four schools; and Switzerland, Italy, Spain, Denmark, and Sweden, each one. America is adding forestry to her scheme of instruction in most of her agricultural colleges, and particularly in Michigan, while Great Britain has the proud pre-eminence of being lag-last of all the countries in the world, and of having wasted her most valuable treasures with a persistence and ignorance that can only be called idiotic.

AS time goes on, the development of electricity gives rise to new applications hitherto undreamt of and unexpected. This has been remarkably illustrated by some recent experiments by Professor Lodge, of Liverpool, on the best means of getting rid of smoke or dust. He filled a bell-glass with magnesium smoke, and noticed what a long time it took to settle if left to itself; but, by introducing a metallic point connected with one of the poles of an induction electrical machine, the smoke dispersed almost instantaneously, whirling about in large flakes, almost like a snowstorm. The same thing happened when the Professor enlarged his sphere of operations from the bell-glass to a room, the smoke with which the latter was filled disappearing as though by magic; and the application is now being extended to practical metallurgy, and particularly in the case of lead-fume condensation, which is one of the chief difficulties attending lead smelting. Mr. A. O. Walker, a smelter at Bagillt, in Flintshire, at present manages his fume condensation by a series of flues and chambers nearly two miles in length, which, to say the least, is cumbersome and unsatisfactory; and he, therefore, determined to avail himself of Professor Lodge's experiment. A long closed flue, filled with a still fume, presents the appearance of a thick cloud that takes hours to disperse; but the electric application was immediate in its results, and still more so when the fume was in motion. The utility of this fact in certain industries, such as lead smelting, the reduction of arsenic or the condensation of zinc oxide, will be of the first importance, not only by doing away with the necessity for costly and extensive flues, but by preventing the formation of those unsightly and dangerous masses of vapour which are so prejudicial to the health of the population, and so destructive to plant and tree life.

THOSE who are capable of seeing would see in Mr. Alma Tadema's pictures good evidence that he has a sound and even thorough knowledge of Greek architectural ornament and detail which would do credit to any architect, and a power of designing it that but few, at any rate, of the present generation could emulate. It is very pleasant to find that he is not above benefiting the world by turning this knowledge to practical account in another way. Messrs. Johnstone & Norman have on view at the present time at their showrooms in Bond-street a portion of the elaborate and beautiful furniture which they are making from Mr. Tadema's designs for the music *salon* of a client in New York. A large cabinet, two settees, and several other pieces of furniture, are already finished, and others, of which the chief is a grand piano, are in course of construction. The principal material used is ebony, and combined with it in the ornaments and mouldings are ivory, cedar, box, and mother-o'-pearl. The ornament of the settees and chairs, which consists principally of foliage and scroll patterns in ebony and ivory, is inlaid in a veneer of cedar nearly ⅛-in. thick, from which it projects about the same thickness,—the raised parts being carved. Most of the legs of the furniture terminate in lions' claws, and the elbows and other similar portions are finished with swans' heads and wings cut out of solid ebony. The mouldings of the cabinet and the backs of the settees are consistently severe in outline, and the delicacy and good taste of the design excludes any suspicion of that vulgarity which too often characterises modern work on which great wealth of material and labour has been lavished. The silver grey silk cushions and hangings are ornamented with bands of hand embroidery in keeping with the rest. It is only fair to add that the finish of the work, much of which is of a very difficult character, leaves nothing to be desired, and that Mr. Coleman is the artist who has worked out the details under Mr. Tadema. It is proposed that the piano standards shall be of bronze, and we understand that Mr. Gilbert, the sculptor, is at present engaged upon a model for them, the design of which is based upon those lovely marble table standards which all visitors to Pompeii know so well. Mr. Tadema himself will paint the lid of the instrument. The *salon* in New York for which this costly and beautiful work is destined is said to be worthy of it, a statuary marble frieze for it being at present in the hands of a celebrated sculptor at Rome, and a painted ceiling in those of Sir Frederick Leighton here. Really one could put up, after all, with being a millionaire!

THE abrupt closing of that sorely-tried Institution, the Alexandra Palace, from the bankruptcy of the lessees, is just what might have been expected, nor is it altogether to be regretted, for it shows the low status to which the trade of exhibition-mongering has been reduced, and may perhaps lead to a decisive check to these rapidly-increasing though dubious experiments. The Alexandra International Exhibition was purely an adventurer's scheme, and has failed as such; and, as no educational or international end was served by it, it is just as well perhaps. England is not the only country to which the infection of holding exhibitions has spread so greatly as to become a nuisance and a source of danger: for the New Orleans affair of last winter and spring has also ended with unmistakable loss, and doubtless many others are not far from the same plight, if the truth was known. It becomes a somewhat serious question for manufacturers of this and other countries to consider whether the exhibition game is worth the candle, and whether they, who are the real mainstays of these affairs, have not become, to a considerable extent, the catspaws of the clever promoters, who hope to get either money or kudos from the concern. Few people believe in the purely educational character of these undertakings nowadays, and without supplementary amusements of some kind no exhibition, however interesting in itself, would attract sufficient visitors to make it pay. What is really needed is the establishment of technical museums, not agglomerated in one huge Government building, far from where it is wanted, but dotted over the industrial centres of our great towns; though of this realisation there seems no hope at present. Such a scheme would be of incalculable benefit to the industrial learners and workers, but it would not present sufficient prospects of fashionable publicity to tempt the exhibition *entrepreneurs*.

AT the recent Conference of the "Funeral and Mourning Reform Association," Mr. Seymour Haden exhibited what was described as a *pulp* coffin, but which to all appearance was a wooden one. The bottom was of deal, and the corners and edges were strengthened with wood, and the whole covered with the usual cloth, but without the usual superfluity of nails. The merit of the material employed is that it quickly decays in the earth, and that consequently the sanitary processes of nature are not retarded, while there is no such outrage upon conventionalism as an open wicker coffin involves. The general feeling of the Conference was that cremation,—however "beautiful" in its results, as Dr. Campbell observed,—was outside the region of practical economics, and that the public had better be first instructed in the elements of sanitation, and in the close connexion between the cheapening and the Christianising of funerals.

FROM the *Berliner Philologische Wochenschrift* we learn that two interesting pieces of mosaic pavement have recently been discovered at Saint Colombe les Vienne. One of the mosaics, three yards long by two wide, has a design with a vase in the middle and fishes round about. The other is a larger and also finer piece of work, about four yards by three. The design consists of birds only, among which are a number of brilliantly-coloured parrots. On the banks of the Rhine, opposite Sainte Colombe les Vienne, were a number of Roman villas: from one of these in all probability the mosaic must have come. It was discovered 8 ft. below the ground during the planting of some trees. With the mosaics were found a quantity of fragments of glass and pottery and a number of coins and bronze ornaments. The land belongs to M. Chaumartin, who was himself fortunate enough to find during the excavation of the pavements a fine head of Minerva in mosaic.

THE Palazzo Fava at Bologna, which is so well known on account of the fourth side of its cortile being carried on fine stone brackets, has just received a splendid coating of whitewash, the brick shafts, terra-cotta mouldings, and stone corbels alike being covered. Bologna, however, in spite of such Vandalisms as this, remains a very fine city; and its new streets, which are rapidly, for Italy, on the increase, are not so glaringly offensive in their architecture as many of those which have been opened or rebuilt of late years in London. The main idea of arcades running along the streets is carried throughout in the new work.

THE restorations of the Ducal Palace at Venice are proceeding,—as do most restorations here,—with great deliberation. To judge by results, however, this is a fault on the right side. The celebrated cap at the south-west angle, and the pier supporting it, have been replaced and coloured with so much adroitness that it requires very close examination to detect it. The façade next the Piazzetta, which has been for some time free from scaffolding, is a marvel of skilful restoration. The river façade at the east end is now undergoing the same careful treatment. The shoring used to sustain the building, whilst the defective piers and caps on the ground stage are replaced, is very ingenious. The restoration works are open to visitors at certain hours. Many of the old caps are badly crushed, and it is a matter for wonder that one or two which have been placed in the courtyard have not succumbed before. The opposite rule seems to hold good in St. Mark's, where the pavements, especially under the restorer's influence, are rapidly losing their old charm of colour. Bit by bit the scaffolding is being removed both from the interior of the loggia and the exterior and what is revealed,—after looking at the mellow tones of the old work,—appears hard and garish to the eye.

BY permission of the Syndicate of Venice, and under the direction of their engineer, excavations have been made by an American travelling student, Mr. Blackhall, for the purpose of finding out something about the foundations of the Campanile of St. Mark's. What has been discovered has been kept a profound secret, except that certain indications of the ancient level of the piazza have turned up.

THE courtesy of officials and of Italians generally to strangers wishing to sketch is very noticeable, and, though one has to blush to admit it, is a pleasant contrast with what occasionally occurs in England. Chairs, and even tables, are brought out by tradespeople and others, if they see any one standing sketch-book in hand. Academy students who intend visiting Italy should always carry their ivory tickets with them, as these are always a ready means of procuring free admission, with permission to sketch, to all galleries, museums, churches, &c., and are everywhere recognised by the authorities.

THE Building Societies' Association seems to have been much exercised by clause 13 of Lord Salisbury Bill for amending the dwellings of the working classes, which they aver would make all purchasers of houses liable for damages to the tenant for any defect in the drainage or otherwise of which the owner had no knowledge. The following is the clause referred to:—

"Whereas by existing law there is implied a condition on letting a furnished house that it is reasonably fit for human habitation, and it is expedient to extend such implication to the letting of unfurnished houses: be it therefore enacted that—

In any contract for letting for human habitation an unfurnished house or part of an unfurnished house, there shall be implied a condition that the house is in all respects reasonably fit for such habitation; and in the event of a breach of such condition as above mentioned, in the case either of a furnished or unfurnished house or any part thereof, any inmate of such house who suffers any loss by injury to health or otherwise in consequence of such breach shall be entitled to recover damages from the person responsible for such breach."

At a meeting on Friday last week, to consider the subject, it was resolved that the clause throws the responsibility of sanitary defects "upon innocent leaseholders and mortgagees," and it was stated that it would be injurious to the building trade as a whole, for "no one would purchase under such conditions." Certainly, under such conditions it would behove the purchasers to ascertain that the property was in a sanitary condition, and an owner would have difficulty in selling unless he knew all about his property and had kept it in a proper condition; and the clause seems to us very well adapted to bring about that desirable state of things. As to the purchaser—"*caveat*," that is all.

THE DERBY MEETING OF THE ROYAL ARCHÆOLOGICAL INSTITUTE.

In selecting Derby as the head-quarters of this year's Congress of the Royal Archæological Institute, the Council made choice of a district which, while rich in archæological remains, and picturesque in its scenery, has not been very frequently traversed by bodies of antiquarian tourists. Bearing this in mind, and remembering also that few districts are better served with railway facilities, it might reasonably have been expected that, with the fine weather with which the first two days of the meeting was favoured, there would have been a larger attendance of members and their friends than usual; but in point of numbers this year's meeting is only an average one. The programme of the first day's proceedings was not completely carried out, owing to the unavoidable absence of several gentlemen who had been expected to take part in the proceedings. In the first place, the appointed "President of the Meeting," the Earl of Carnarvon, was precluded from attending, owing to the pressure of official duties which had come upon him since the arrangements for the Congress were made. The Mayor was unable to receive the members of the Institute owing to indisposition; and Mr. Beresford-Hope could not be present to give his opening address as President of the Architectural Section, which was deferred to a later day.

The formal proceedings of the Congress commenced at noon on Tuesday, when the President (Earl Percy) and members of the Institute were publicly received in the Art Gallery of the Free Library by the Deputy-Mayor (Mr. Alderman Hobson) and other members of the Corporation. The Deputy-Mayor, in the course of some words of welcome, pointed out that since, thirty-four years ago (*i.e.*, in 1851), the town and county were visited by a kindred society, the British Archæological Association, a flourishing local society had been established, viz., the Derbyshire Archæological and Natural History Society. The Town Clerk (Mr. H. F. Gadsby) next read a formal address of welcome expressive of the Corporation's appreciation of the work of the Association, and promising all needful help and encouragement in it. Earl Percy, in replying on behalf of the Institute, expressed the hope that the present meeting would be fraught with instruction and benefit to local antiquaries no less than to the members of the Institute at large. Incidentally he referred to the report of the Select Committee of the House of Commons with regard to the "restoration" of Westminster Hall as suggesting, to those who had votes, the consideration whether their representatives in Parliament did not require some little education yet,—at any rate from an antiquarian point of view. It was to be regretted (he added) that the increased enlightenment of the age did not prevent the perpetration, even by those in authority, of acts which might, without undue harshness, be described as deeds of Vandalism. The Hon. F. Strutt read a telegram from the Bishop of the Diocese (Southwell), and on his behalf and in the name of the Derbyshire Archæological Society welcomed the members of the Institute to Derbyshire. A formal address of welcome and congratulation from the local society was then read by Mr. Arthur Cox, and this also was acknowledged by Earl Percy. After luncheon the members visited St. Peter's Church, and then proceeded to All Saints' Church, under the guidance of Mr. W. H. St. John Hope. With regard to St. Peter's, it may be observed that this is the only pre-Reformation parish church (fabric) in the town. The north aisle, with its propped-up roof, is in special need of repair at the present moment, and steps are being taken to raise funds for the restoration of the church. (Mr. S. Barton Eckett, *Advertiser* office, Derby, is the hon. sec. of the committee.) Later in the afternoon an excursion was made to Kedleston Hall, where the visitors were invited by Lord Scarsdale to take tea. Kedleston Hall is a mansion built (on the site of a former house) by Sir Nathaniel Curzon, and finished about 1765. The architect was Robert Adam. The saloon, circular on plan, 42 ft. in diameter and 55 ft. high, with domed roof, is a fine apartment. The hall is graced by a series of twenty alabaster columns, each 25 ft. high. Kedleston Church was also visited, and the monuments of the Curzon family inspected. The church, which is cruciform, is now being restored by Mr. John Oldrid Scott, at the cost of Lord Scarsdale, who is in orders and holds the living himself.

The first of the sectional meetings to be opened was that of the Antiquarian Section, which met in the Art Gallery of the Free Library at eight o'clock on Tuesday evening, when the President of the Section, the Rev. J. C. Cox, LL.D., delivered his opening address, which was mainly confined to an interesting and suggestive enumeration and examination of some of the place-names and field-names of Derbyshire. He pointed out the great value of the preservation of local names, and remarked on the light which their study was capable of throwing on the historical, social, and industrial aspects of the localities to which they were attached. They also afforded indications of the *flora* and *fauna* of bygone ages. It was true that the study of place-names led one into the thorny paths of etymology, and that wide differences often prevailed amongst etymologists as to the derivation of place-names. Nevertheless, in spite of its difficulties, the study of this subject was exceedingly interesting and inviting. Much valuable information was often to be gleaned from ancient parish maps, which were not always to be found in the possession of their lawful custodians. He had discovered some in lawyers' offices, and in one case that he knew of the map had been placed in the hands of the sexton, a man whose bibulous propensities had led him to deposit the map with the village beershop-keeper as some security for the settlement of his "score." Field-names, no less than place-names, were full of significance to those who had looked into the subject. Some were indicative of the foolish way in which special crops were attempted to be forced by law upon the people; for there were few parishes that had not a "flax-piece," bearing witness to the futile legislation of 24 Henry VIII. Others, again, told of trades now extinct, or of metals long worked out. Having regard to the ethnological aspect of place-names, instancing only the Norse invasions and incursions, Derbyshire was remarkable for the admixture of its nomenclature. The two chief divisions of the Norsemen who settled in England were the Danes and the Norwegians,—the former chiefly on the east coast, and the latter on the north-west coast, having sailed round Scotland. Taking the commonest of their distinguishing place-terminals, it was found that whilst *thwaite*, the distinctive Norwegian suffix, occurred forty-three times in Cumberland, it was found not once in Lincolnshire; on the other hand, *thorpe*, one of the chief Danish test words, which occurred sixty-three times in Lincolnshire, was found only once in Cumberland. In Derbyshire, alone in England, these suffixes were blended. Having touched on the place-names and field-names of Derbyshire which were of ecclesiastical or religious interest, Dr. Cox concluded by entering a plea for conservatism in the matter of the retention of old names. There might, he contended, be Vandalism with regard to the names of places as well as in connexion with the fabrics of buildings. In an interesting book lately published,* the author had shown what irreparable mischief had been done by changing the names of London streets. The Corporation of Derby had been good enough, earlier in the day, to express their interest in the work of the Archæological Institute, and therefore he hoped that the governing body of the town would speedily restore to Derby the name of one of its oldest streets, viz., "Bag-lane." For that name, which had existed since the time of Edward II., the Corporation had substituted the cognomen of "East-street." He believed that it had even been proposed that the new name should be "Commercial-street," apparently because it was supposed that the old name had some connexion with bagmen.

Mr. R. S. Ferguson, of Carlisle, in proposing a vote of thanks to Dr. Cox for his paper, referred to the meaningless substitution of new names for old which had taken place in London, as, for instance, the changing of "Grub-street" into "Milton-street." The same sort of thing, he regretted to say, had taken place in Carlisle, where the old names of "Bull-ring" and "Glover's-row" had been replaced by "Green-market."

The Rev. Prebendary Scarth having seconded the vote of thanks, Dr. Cox briefly replied, instancing, as another needless change of name, the recent substitution by the Corporation of Derby of "Great Northern-road" for a street the old designation of which was "Dog Kennel-lane."

A paper on "Roman Nottingham," announced to be read by Mr. W. T. Watkin, was postponed, and the opening of the Architectural Section was also postponed, owing to the unavoidable absence of its President, Mr. Beresford-Hope. The proceedings of the Antiquarian Section were therefore continued, and

The Rev. Prebendary Scarth read an interesting paper, entitled "Notes on Roman Derby and the Roman Stations and Roads in Derbyshire, and on the Traces of Ancient Mining." He observed that the town of Derby, situate in the ancient territory of the Coritavi or Coritani, owed its name, and probably its origin, to a Roman station on the eastern side of the River Derwent. *Derbentio* was one of the names on the Ravenna list, and that name came from the river on which it was situated, the Derwent, and the river preserved the old British appellation, "*Dur*" being the Celtic name for "water." Thus "*Derbentio*" was the station on the Dur or water. That it was a station of importance might be inferred from its being the central point of five Roman roads. The remains of the station or camp were to be seen at Little Chester, half a mile from Derby. The camp was examined in 1721 by Dr. Stukeley, who traced its walls, and described them as forming a square or quadrangular figure, 500 ft. by 600 ft., enclosing an area of about seven acres,—not an unusual size for a Roman fortified camp or city. Within the walls foundations of houses were to be traced, and also in the fields outside the castrum, where the traces of streets were to be seen in Stukeley's time. According to Mr. Llewellyn Jewitt, the coins found on the site would indicate that the station was occupied during nearly the whole period of the Roman power in Britain. Mr. Thompson Watkin, in a very clear and able paper on the Roman stations in Derbyshire, mentions that, in the winter of 1873–4, a former vicar of St. Paul's, Derby (the vicarage of which is at Little Chester), excavated portions of a raised bank which runs along one side of the vicarage garden, and in it he discovered a great quantity of all kinds of Roman pottery. The finding of three pigs of run lead in 1873, two on Matlock Moor and one on Cromford Moor, all having inscriptions, is indicative of the working of the mines of Derbyshire in the

* Mr. Laurence Hutton's "Literary Landmarks of London."

Roman period. These pigs of lead are now in the British Museum. The subject of Roman mining in Britain is one which is full of interest. Derbyshire, as well as Shropshire, Somersetshire, Yorkshire, the Forest of Dean, and North Wales, bear testimony to the extent to which lead and iron ore were worked in Roman times. Of places of note in Roman Derbyshire, Buxton, the ancient Aquæ, and known for its warm springs, must hold the chief place. Here remains of an ancient bath have been found. Aquæ is mentioned in the Ravenna list next to *Navio*, and portions of a miliary, or Roman milestone, discovered some years since, settles the position of the latter place. This interesting fragment is now in the museum of the Natural History Society at Derby. There is another Roman camp of importance which must be noticed in treating of the Roman occupation of Derbyshire, and that is Melandra Castle. It is situated in a commanding position at the junction of two streams, the Edrow and the Dinting Brook, and is a parallelogram in form, measuring about 122 yards by 112 yards. The ramparts can be clearly traced, and are about 6 ft. or 7 ft. high, and about 9 ft. in thickness, the hewn stone remaining. The ditches were also traceable when the Rev. J. Watson described the remains to the Society of Antiquaries in 1792. These were only needed on two sides. Remains of buildings were formerly to be traced; these are now removed. The four gateways are distinct, in the centre of the four sides, and the foundations of a building, 25 yards square, are to be seen in the area on the south-west of the station. It is much to be regretted that a careful record has not been kept of the Roman remains found at Buxton, which must have been a place of resort for health, like Bath. It is not known if Buxton was a fortified city in Roman times, similar to Bath, where the foundations of a Roman wall have been traced, or whether it was an open, undefended town, similar to that lately discovered in France, near to Poictiers. It is not probable that, in a wild country like that of the Coritani, a warlike people who could have been only partially subdued, the town was undefended. Derbyshire is known for its iron workings, in very early times, as well as for its lead mines, but no Roman pigs of iron are recorded to have been found, so far as the lecturer could ascertain. The ironstone district extends northward from Dale Abbey through the hundred of Scarsdale into Yorkshire. Iron was as much in request among the Romans as lead, and this may be seen by the workings left by that people in the Forest of Dean, in Gloucestershire, where pigs of Roman iron have also been found. Traces of a very primitive population still exist in Derbyshire, and iron as well as lead may have been worked by them.

With a vote of thanks to Prebendary Scarth for his paper, Tuesday's proceedings came to a close.

On Wednesday, a party of about 100 ladies and gentlemen started in breaks and wagonettes for Ashburne, thirteen miles by road from Derby. Proceeding to the very interesting parish church, with its fine tower and spire, locally known as "the Pride of the Peak," the visitors were very kindly received by the energetic vicar, the Rev. F. Jourdain, and by him conducted over the church, which has several peculiarities. Built in the form of a cross, it consists on plan of chancel, north and south transepts, and nave with a south side aisle, or, as it is sometimes called, a double nave. From the centre piers rises a bold tower, surmounted by a spire which attains to an elevation of 210 ft., according to Cox's "Churches of Derbyshire."* Some idea of the general proportions of the church may be gathered from a statement of its principal dimensions. The chancel is 65 ft. by 25 ft.; the total length of the church is 180 ft.; the transepts, which are double, being divided by piers and arches, are 85 ft. by 40 ft.; and the height of the nave is 55 ft. Of the Norman church no remains exist, save a few stones found during the restoration. The chancel and transepts are of the Early English period, though not all of one date. There is evidence, however, that they must be prior to 1241, in which year the church was consecrated and dedicated to St. Oswald, king and martyr. The ground plan was completed in the Decorated period by the rebuilding of the nave, adding to it a south aisle, and erecting the central tower. During the Perpendicular period the walls were raised by the addition of clearstories. All the important monuments in the church are now placed in the north transept and its aisle. They are nearly all to members of the Cockayne family. The earliest is an altar tomb, with fine alabaster effigies of John Cockayne (not in armour), who died in 1372, and his son Edmund, killed at the battle of Shrewsbury in 1404. In the north transept, with the Cockayne monuments, is Banks's famous figure of Penelope Boothby, who died in 1791, at the age of seven. The vicar, the Rev. F. Jourdain, in conducting the visitors over the church, pointed out the nature of the extensive restorations which he has carried out within the last six or seven years, restorations which, it appears, have been carried out under Mr. Jourdain's personal superintendence, without the help of a professional architect. Although, in one or two matters, exception might be (and was) taken to what has been done, the general opinion expressed by the visitors on Wednesday was that the vicar was entitled to thanks for the conservative and intelligent manner in which, on the whole, he has carried on the work of restoration. On Mr. Jourdain's advent, the church was hideously deformed, mutilated, and hidden from view by galleries and other erections of more than usual extent and unsightliness. Some of these monstrosities were not swept away without protests on the part of the Society for the Protection of Ancient Buildings, who put in their well-worn plea that to remove them was "to interfere with the history of the building." Among other good things done by Mr. Jourdain is the restoration of the west doorway, which, he informed the visitors, was entirely closed up so late as 1839, "because of the draught to Sir William Boothby's back." The doorway, as it now exists, was stated to be a faithful reproduction of the feature as it existed prior to 1839. Some interesting traces of frescoes were found during the restoration, and drawings of these were exhibited. One of the lancet windows in the north transept is filled with thirteenth-century glass. The chancel was restored in 1866-7, under the direction of Sir Gilbert Scott, who considerably raised the level of the floor (as may be seen by the proximity to it of the old piscina), thereby covering up, Mr. Jourdain feared, some interesting monumental slabs. At any rate, he knew of one instance, and he thought there must be others, for, although the church was obviously one of very considerable importance, very few slabs of note had been found in the course of the more recent works.

Luncheon having been partaken of in a tent in a meadow overlooking the churchyard (with none the less zest because of the announcement that the half-crowns paid for it would all go towards defraying the cost of the restoration, the parishioners having given all the viands), Earl Percy, the President of the Institute, tendered the thanks of the members to the vicar for the kindness he had shown to them. Mr. Jourdain, in a few words of reply, expressed his gratification at the interest which the visitors had taken in the church, and referred to the valuable assistance he had received in the work of restoration from the late Mr. Abbott, from his churchwardens, and from his parishioners at large, who, irrespective of creed, had co-operated with him in his desire to see the church restored to a condition worthy of itself,—a state of things which not only speaks well for the parishioners, but bears testimony to the personal qualities of the vicar.

Again taking their seats in the carriages, the visitors proceeded to Norbury, a village five miles to the south of Ashburne, containing two buildings of great interest, the church and the manor-house. The church, which is dedicated to St. Mary-the-Virgin, consists of chancel, nave, north aisle, and tower, the latter being somewhat remarkable for its position between two chapels on the south side of the nave. The chancel is unusually large, in proportion to the rest of the building, the length of the nave being 49 ft. 3 in., and that of the chancel 46 ft. 6 in.* The church is of Late Decorated date, with somewhat singular details. The nave arcade is of Decorated work, but the aisle was rebuilt by Nicholas Fitzherbert before 1473. He also added the clearstory. The tower and adjacent chapels are somewhat later. The church is noteworthy for the number and beauty of its monuments, and also for the amount of old glass it contains. The Rev. Dr. Cox conducted the visitors over the church, and, in reference to the tombs of the Fitzherberts, pointed out the large slab in the floor of the chancel, with a brass to Sir Anthony Fitzherbert, "one of the King's Justices of the Common Bench," who died in 1538. It is a curious instance of the irony of fate that, though this same Sir Anthony Fitzherbert strongly protested against the despoiling of the monasteries, and particularly enjoined that none of his descendants should hold lands which had been filched from the monks, his memorial brass at Norbury, a palimpsest, has been taken from the tomb of a monk, as an inscription and figure on the under side of it clearly show. Mr. St. John Hope having said a few words about the monuments, the visitors proceeded, under the leadership of the Rev. Dr. Cox, to the old manor-house. At first sight the building, which is situate close to the south-west corner of the church, looks like an ordinary farmhouse about 150 years old; but an inspection of the interior of the building will show that the remains of a far more ancient structure are incorporated with it, being in great part concealed externally by the comparatively modern casing of red brick. The manor was originally given by Henry de Ferrers to Tutbury Priory, *circa* 1080, but in 1125 the Priory gave Norbury in fee-farm to William Fitzherbert at a yearly rental of 100s. It was thus held till 1444, when the Fitzherberts obtained it absolutely by exchange. Of the original manor-house practically nothing is known. It was entirely rebuilt by Sir Henry Fitzherbert, who succeeded as fifth Lord of Norbury in 1267, and was living in 1310. The new building consisted of two courts, outer and inner. The only parts remaining are the south and east sides of the inner court. The latter part comprises the great hall. Dr. Cox quoted further particulars from an interesting paper published by him entitled "Norbury Manor-house and the Troubles of the Fitzherberts," and many of the visitors afterwards inspected an upper room, known as Sir Anthony Fitzherbert's study, in which there is some good oak panelling, some of the panels bearing painted black-letter texts from the Vulgate.

Resuming their seats in the carriages, the visitors were next driven to Longford, where the interesting church, dedicated to St. Chad, was inspected. It consists of chancel, nave with aisles and south porch, and a western tower. Of the church that was erected here *circa* 1100, there are considerable remains. The arcades between the nave and aisles were curiously treated in the fourteenth century. One pointed arch and a respond at the west end are of Decorated date, the remaining Norman arches being left untouched; but, on the south side, the Norman capitals of the pillars were rather clumsily cut into Decorated mouldings, from which, and from two responds of that period, spring four pointed arches. So says Dr. Cox in his "Churches of Derbyshire," and he repeated the statement on Wednesday; but it was pointed out by one of the visitors that the pillars on the south side must either have been smaller originally than those on the north side, or they must have been reduced in diameter when the capitals were altered, for they are certainly smaller now. There are some good monuments in the church, but they have been most capriciously moved about from time to time. Of the series of Longford knightly effigies, the earliest is that now in the south aisle; the arch under which it lies is not, however, its original place.

Leaving the church, the visitors took to the carriages again and left for Derby, a distance of ten miles from Longford. This, the last part of the day's round, was accomplished amid many difficulties, owing to the tired and "done-up" condition of the horses. It would surely be well in future, especially where such hilly districts as Derbyshire have to be traversed by road, not to attempt to cover too much ground in one day, for where such attempts are made there is not sufficient time to examine the buildings visited; moreover, the horses should be considered. Those which were employed to draw the wagonettes on Wednesday must have travelled between 35 and 40 miles. The weather was all that could have been desired.

* "Notes on the Churches of Derbyshire," by the Rev. J. Charles Cox, LL.D. London and Derby: Bemrose & Sons.

* This (as stated in the very useful "Notes on Places to be Visited," prepared for the members of the Congress, by Mr. W. H. St. John Hope, M.A., F.S.A.) is a peculiarity found in several of the Derbyshire churches, *e.g.*, Dronfield, Sandiacre, Tideswell, and St. Peter's, Derby.

In consequence of the delayed return of the excursionists, the opening meeting of the Historical Section of the congress, over which the Dean of Lichfield presides, was held nearly an hour late. The Dean, in an eloquent address, showed the great value of the labours of the archæologist to the historian. The Rev. Prebendary Scarth having made a few observations on the paper, the Rev. Sir Talbot Baker moved, and the Rev. Dr. Cox seconded, a vote of thanks to the Dean. Professor E. C. Clarke, of Cambridge, followed with a learned paper on "Romano-Greek Inscriptions found in England," which was discussed at some length by the Rev. Father Hirst (who expressed his satisfaction that the study of epigraphy was at last beginning to receive attention in England), Mr. J. Hilton, F.S.A., the Rev. Prebendary Scarth, and the Rev. G. F. Browne. Thanks having been given to Professor Clarke, the meeting separated at a late hour on Wednesday evening.

We shall continue our special report of the proceedings next week.

LETTER FROM PARIS.

Last week we have lost two artists of great merit, who leave general regrets behind them; M. Magne, Honorary Inspector-General of Architectural Works of Paris, and M. Schœnewerk, the sculptor. The first died at the age of sixty-nine, after a short illness; the second committed suicide. This latter calamitous end seems to have been owing to the disheartening effect arising from an idea of the want of success of his career. Schœnewerk was in full possession of his powers, and in more than easy circumstances. Unhappily, his wife had been obliged to be confined in a lunatic asylum, and the poor artist, left a prey to sombre meditations, has been the victim of a mental aberration.

Schœnewerk was a pupil of David d'Angers and of Triqueti. He obtained numerous *Salon* medals, and was "decoré" in 1873. More recently, he completed, for the grand staircase of the Hôtel de Ville, a group in stone, symbolising "Instruction," and which is remarkable for the simplicity of its lines and the grace and elegance of the figures.

M. Magne leaves a considerable amount of artistic work behind him. After having studied, at the École des Beaux Arts, in the ateliers of Guenepin and Debret, he obtained, in 1858, the second Grand Prix de Rome, and various honours at the *Salon*, especially the "première médaille," in 1878, and was named Officer of the Legion of Honour in 1879. Among his principal works may be mentioned the Eglise St. Bernard (XVIIIth Arrondissement), the Théâtre d'Angers, the new Horse Market, and Théâtre de Vaudeville. His son, M. Lucien Magne, is also an architect, who has made a special study of archæological restorations, and is about to produce a work of great interest on ancient windows.

Paris is by this time itself again. The last excursion trains have taken away the last of the provincial visitors; and the vestiges of the national fête, including the innumerable sheds which have for a month past turned the town into a vast fair, are everywhere disappearing. Now that the streets and the public monuments have recovered their usual physiognomy, it is too late to speak of the 14th of July, of which the programme is necessarily the same every year. We may say once more, however, that the Palace of the Trocadéro lent itself admirably to the effect of the coloured illuminations which made the salient point in the amusements of the evening. When the gas outlined in fire the lines of the superimposed arcades of the galleries and the *silhouette* of the campaniles and dome, the ungraceful and incomprehensible work of the late M. Davioud assumed, in this apotheosis, an unexpected and fairy-like aspect. To M. Alphand is due this scenic effect, worthy of the Arabian Nights, and this time the art of the engineer has corrected the errors of the architect.

As we announced in our last letter, the National Fête has served as the pretext for a crowd of inaugurations; at Paris, statues of Voltaire, Béranger, and the "alienist" Pinel; at Nemours, that of the mathematician Bezout; at Luneville, that of the Abbé Grégoire. We have sufficiently given our appreciation of the Voltaire statue, so far as the work of the sculptor Caillé is concerned; as for the pedestal designed by M. Formigé (who, by the way, is to receive a decoration) we regret that we cannot praise that either, unreservedly; the lines are simple and severe, but it is out of scale, and the architect has not sufficiently taken account of the restricted space and of the height of the wing of the Institute which forms a background to it. The only thing one can thoroughly praise is the conciseness of the inscription, which stands thus,—

VOLTAIRE
1694—1778.

for, however we may dissent from him, Voltaire is one of those names which can dispense with long and formal inscriptions.

Much better, to our mind, is the statue of the popular "chansonnier" which rises in the Square Du Temple. Its author, M. Doublemard, has been able to produce, from his personal recollections, a likeness striking both in feature and attitude, to all those who, like the present writer, knew Béranger in their boyhood. The pedestal, designed by M. Yvon, the architect, is simple and of perfect proportion, and decorated with attributes in bronze, also designed by M. Doublemard.

We may take occasion from this double ceremony to notify to tourists and amateurs of historic relics that the Musée Camavolet preserves piously the *fauteuil* on which Voltaire died, and the last-worn garments of Béranger, his cane, his snuff-box, and the memorandum-books in which he wrote his private notes.

The monument to Pinel is a creditable but rather dry production of M. Ludovic Durand, who has represented the "benefacteur des aliénés" at the moment when he is breaking the fetters of a young lunatic woman seated at his feet, and who offers him flowers. The pedestal, the work of M. Menjot de Dammartin, architect, is adorned with allegorical figures, and the whole constitutes a group sufficiently decorative in effect, rising before the gate of the Hospice de la Salpetrière.

Let us not forget one more inauguration, that of the "École Normale Supérieure," a monument to the memory of Louis Thuillier, the young savant who died two years ago at Alexandria, a victim of cholera, and whose bust in bronze, a work of the lamented Idrac, rests on a marble console, decorated with a commemorative inscription. We may add that, much as "statue-mania" has been abused among us of late years, no one will criticise an act of public homage which has the advantage of being apart from political pre-occupations. Thus all parties joined also, without hesitation, in sanctioning the action of the Municipal Council in ordering for the Hôtel de Ville a bust of Sergeant Bobillot, who fell gloriously at the siege of Tuyen-quan. The execution of the work has been intrusted to a young sculptor, M. Henri Dubois.

There is talk, also, in official circles, of presently inaugurating various buildings for public instruction, on the left bank of the river. There is, first, a new school of medicine which occupies an area of about 7,000 mètres between the street of that name and the Boulevard St. Germain, where it develops into a monumental façade decorated with two Caryatides by Crank, symbolising "La Médecine" and "La Chirurgie." Then, there is the "École Pratique de Médecine," which comprises, in its enclosure, the Musée Dupuytren and the ancient "Cloître des Cordeliers." When these works are complete, the habitations placed at the disposal of the Faculty of Medicine for all purposes of instruction will have an extent of more than 40,000 square mètres, while, before 1870, the Faculty possessed only a space of 7,000 mètres, with buildings in a deplorable and very insanitary condition. We can safely affirm that the two buildings are highly creditable to M. Ginain, their architect, who has contrived in the face of many difficulties to complete this work, without which the studies of the medical pupils might any day have been interrupted.

We must also notice the approaching inauguration, at Sceaux, of the Lycée Lakanal, a building planned by M. Baudot, under special conditions in regard to hygiene, comfort and complete scholastic arrangement. We may speak later of this model school.

As to the laying of the first stone of the Sorbonne, which is to take place on Monday, the 3rd of August, as this coincides with the distribution of prizes for the general competition of the "Lycées" of Paris, the Municipal Government intend to give to that ceremony an exceptional solemnisation.

If the artistic level of the works exhibited this year left something to be desired, at least the financial results of the *Salon* have been most practically satisfactory. The total receipts, which in 1884 were only 290,000 francs, have this year reached 350,000 francs, without counting the extra sum from the new entrance-fee charged on "varnishing-day," which made up a purse of 25,000 for the relief of the wounded at Tonkin.

At this time of year there is little artistic news. The great public works still hang fire, and as the Government will come to no decision in regard to the Metropolitan Railway and the Exhibition of 1889, and as on its side the municipality seems to hesitate about proceeding with the decoration of the Hôtel de Ville, our news is reduced to a small budget.

We will confine ourselves to the announcements:—(1) That MM. E. Barrios and Antonin Mercié are intrusted by the Committee of the Jockey Club with composing the models of the two works of art intended to be reproduced in silver, and presented as prizes at the approaching races.

2. That the Municipal Council of Paris has authorised the construction of a "maison de retraite," for which M. Galignani left to the city of Paris a considerable sum. This foundation is intended to receive, according to the will of its generous benefactor, 100 persons of both sexes, over sixty years of age and without means of subsistence. This edifice, the cost of which will exceed 1,200,000 francs, will be constructed at Neuilly on the Seine, on a large plot of land, also left for this object by M. Galignani, whose name will become as popular in Paris as that of Sir Richard Wallace.

The art journals give a lamentable description of the present state of the Porte St. Denis, which, some days since, disappeared behind the scaffolding erected with a view to its restoration. It was high time. It is said even that it is already too late, and that it is in an alarming condition. It will be necessary, it appears, to replace many of the figures and a portion of the ornaments. If the remedy is applied too late, it is certainly not for want of previous warnings to which the Ministère des Beaux Arts has paid no attention.

We may terminate this letter by remarking on a new example of the unfortunately too common carelessness of the Commission des Monuments Historiques. In the last number of the *Builder*, under the title "Vicissitudes of a Royal Château in France," a picture was drawn of the state to which the Château of Villers-Cotterets is reduced, in becoming an asylum of vagabonds and mendicants. As a pendant to that act of administrative Vandalism, according to certain journals, the "Administration de la Guerre" is taking possession of the Château of Fontainebleau, and installing there its school of "application du génie." If the "Direction des Domains Nationaux" do not look after the matter, the whole château will soon be transformed into a military school, and the ancient forest will be no more than a shooting-range and an exercising-ground. Certainly no school more deserves our sympathies; but, while giving them freely all the land they want, would it not be as well if the military authority were to consult the "Commission des Monuments Historiques" in regard to their projected gifts?

Let us hope that in view of the just demands of the Parisian press the Government will show a little more care in regard to its artistic riches, and that it will leave to tourists, painters, and archæologists the Château of Fontainebleau, its curiosities, its relics, its gardens, and the picturesque views in its marvellous forest.

ROYAL ACADEMY STUDENTS.

ADMISSIONS TO ARCHITECTURAL SCHOOL, JULY, 1885.

Students of Upper School.—Messrs. H. A. Satchell, J. E. Sears, J. M. Townsend, F. W. Troup, W. H. Woodroffe, and E. Woodthorpe.

Students of Lower School. — Messrs. W. Alford, A. E. Barnsley, F. D. Bedford, T. Davison, C. D. Fitzroy, P. N. Ginham, J. E. Inglis, F. J. James, G. L. Jones, G. F. McCombie, and R. F. Macdonald.

Probationers.—Messrs. S. H. Barnsley, W. R. Butler, C. J. H. Cooper, G. W. Cooper, W. F. W. Cooper, A. A. Cox, A. H. Hart, C. S. Haywood, J. A. Morris, R. L. Pearce, S. Piper, F. C. Ryde, A. D. Shortridge, A. E. Vickers, T. L. Worthington, and A. N. Wilson.

THE ARCHITECTURAL ASSOCIATION.

VISIT TO CROYDON.

The Architectural Association, on Saturday, the 25th of July, made an excursion, in the first instance, to St. Michael's, Croydon, the fine church, built in 1882 from the designs of Mr. Pearson, R.A., at a cost of 16,800*l*. The plan of the church is cruciform, with apsidal chancel, with ambulatory round it. On the south side of the choir is the morning chapel, which is the most charming feature of the church. The chapel is separated from the choir by a narrow aisle, and the east wall of the transept is pierced with an arcade of three arches. The vaulting of the chapel is carried on four columns, which range with the columns in the aisle and transept. The organ occupies the corresponding position in the chapel on the north side of the choir, and is placed in an organ-chamber on the triforium level, the space underneath being vaulted. The width of the nave is 25 ft., and the height to the boss of the vaulting ribs, 59 ft. The entire church is vaulted with stone ribs and stock bricks similar to the walls. The west end has a small gallery. The church will, when the permanent benches are provided, seat 900. The building is complete as far as the church is concerned, with the exception of the benches. The vestries, and south porch, and tower have yet to be built. The proposed tower and spire are about 217 ft. high.

Externally the church is faced with red bricks and tile roofs, the east end having two bold turrets. The design of the church is Early English in character, the detail being very like that of the Yorkshire abbeys. After leaving the church the members walked by the side of the Wandle to Beddington Church and Hall. The present church was built in the early part of the fifteenth century, and was restored by Mr. J. Clarke in 1868. The interior has been elaborately decorated by Messrs. Clayton & Bell. The Carew Chapel contains some interesting monuments. One to the memory of Richard Carew, who died in 1520, has been illustrated in Pugin's examples, as well as the oak-screen separating the chapel from the chancel. There is also a handsome Elizabethan monument to the memory of Sir Francis Carew in the chapel. The only portion of the original building of the Carew mansion now existing is the hall, which is used as the dining-hall of the Orphan Asylum, which has been built to it. The roof of the hall is a very fine, bold hammer-beam roof, the old panelling and screen illustrated in Nash's book have been removed. In the hall is an old lock, which has been illustrated by Pugin in his examples. After having seen the church, the members went into the park, and Mr. Leverton gave a short account of the Carew family.

There are two manors mentioned in Doomsday book under the name of Beddington, and which appear to correspond with this, afterwards called Home Beddington or West Court, and Huscarles Manor.

In 1345 the manor of Home Beddington was in the possession of Sir Richard de Wyloghby. He had an only daughter, Lucy, whose second husband was a Nicholas Carew. Carew succeeded to his father-in-law's estate, and shortly afterwards purchased the adjoining property of Huscarles Manor, and so united the two, and they remained in the possession of the same family (excepting a short period) until very recent times.

This Nicholas Carew seems to have been a man of considerable talent. In 1362 he was a Knight of the Shire for Surrey, and in 1372 was made Keeper of the Privy Seal by Edward III., and subsequently made one of his executors. It is supposed that the present church was built during his time. This surmise is corroborated by a bequest of 20*l*., which he made. The Carew chapel was built some time about 1520. Nicholas died in 1432, and was succeeded by his son, and subsequently grandson and great-grandson, all of whom were named Nicholas. The last of these died in 1456, leaving an only son, a minor. He died without issue, and the manor passed to his cousin Richard. Richard distinguished himself at the Battle of Blackheath, in 1497, and was made a knight banneret. He afterwards held the high office of Lieutenant of Calais during the reign of Henry VII., and, Henry VIII. dying in 1520, he was buried in the church, and the monument erected to his memory which Pugin illustrated.

His son, another Nicholas, succeeded, and was also appointed to his father's post of Lieutenant of Calais. He became a very great favourite of Henry VIII., and was appointed Master of the Horse and a K.G. Notwithstanding these favours, he appears to have joined in a conspiracy with a number of zealous Catholics to overthrow the Government, and place Cardinal Pole on the throne. The plot was discovered, and the conspirators were all executed. Sir Nicholas was beheaded on Tower Hill, and buried in St. Botolph's, Bishopsgate. Some accounts say that he was not really concerned in the plot, but he had the misfortune to incur the king's displeasure on account of some jest or game in which his Majesty's came off second best. The estates, being forfeited, were seized by the Crown, but in 1554 Sir Francis, the son of the conspirator, obtained the favour of Queen Elizabeth, and had them restored to him. Sir Francis built the mansion, the only remains of which now are the hall, and had the honour of being twice visited by his sovereign. A quaint story is told in connexion with one of these visits about a cherry-tree. It is said that a canvas screen was placed over the tree, and by constant wetting the ripening of the fruit was retarded. A few days before the Queen arrived the canvas was taken off, and the fruit ripened rapidly, and the tree was covered with fine cherries more than a month after all others had lost their fruit.

The first orange-trees ever seen in England were raised by Sir Francis from seeds brought over by Sir Walter Raleigh, who married his niece. The orangery in turn became very famous, and one year upwards of 10,000 oranges were picked; the trees were all destroyed by frost in 1739. Sir Francis died unmarried in 1611, aged eighty-one, and was succeeded by his nephew and adopted son, Sir Nicholas Throckmorton, who assumed the name and arms of Carew. The monument in the Carew Chapel to Sir Francis was erected by Nicholas, and the figures in front are supposed to represent the latter and his family. The manor passed on regularly from father to son, and nothing of importance happened till 1707 when the entire house, with the exception of the hall, was rebuilt by Nicholas Carew. Soon after, the interior of the north wing was destroyed by fire, and was never restored. This Nicholas was created a baronet in 1714 by Queen Anne; he died in 1726–27, and was succeeded by his grandson, on whose decease the property passed to his only surviving daughter, Catherine; at her death it passed to Richard Gee, of Orpington, Kent, a descendant of Philippa Carew, an aunt of the Sir Nicholas who rebuilt the house. There is a brass of this lady's in the church, which also commemorates her thirteen brothers and sisters. Richard Gee assumed the name of Carew by a special Act, and after him the property passed to relations more or less remote. In 1828 Admiral Sir Benjamin Hallewell, who distinguished himself at the Battle of the Nile, came into possession, and, following the practice of his predecessors, assumed the name and arms of Carew. The property passed out of the family in 1864, and very soon afterwards the whole of the house, except the Elizabethan hall, was gutted by a great fire. The house has now been converted into a female Orphan Asylum.

The park, now the property of the Rev. Canon Bridges, is thrown open to the public, and has some charming lodges from the designs of Mr. J. Clarke.

THE NATIONAL COMPETITION EXHIBITION OF 1885.

The national competition for medals and prizes offered by the Science and Art Department to all the art schools and classes which are in connexion with that department has just concluded; and the premiated drawings, models, and paintings numbering some 450, are displayed in the lofty cross-lighted central block of buildings in which the National Portrait and Scientific Collections are exhibited. The collection of students' work, cramped into screens crowded together, deserves better treatment than this, and it is to be hoped that some place more suitable than that assigned to it this year may be found for the exhibition in the future. The special interest of this annual collection of art students' work, which from time to time has been commented upon in the *Builder*, lies in the fact that it represents the yearly outcome of the State-aided system, in the upper branches, of instruction in art, as regards the whole of the United Kingdom. The highest number yet reached of students' works submitted for examination has been touched this year. Over 285,000 of such works have been sent to South Kensington. A preliminary examination of them was held, with the result that some twelve hundred of them were chosen to be passed forward for the national competition. Of these twelve hundred, 451 have won the distinction of awards of gold, silver, and bronze medals, and national book prizes. The awarding of these medals and national prizes was undertaken by a committee of examiners composed as follows:—Mr. G. D. Leslie, R.A.; Mr. W. F. Yeames, R.A.; Mr. H. S. Marks, R.A.; Mr. H. H. Armstead, R.A.; Mr. Hamo Thorneycroft, A.R.A.; Mr. W. Morris; Mr. G. Aitchison, A.R.A.; Mr. J. J. Stevenson; Professor W. C. Unwin; Mr. Walter Crane; Mr. Alan S. Cole; Mr. T. Armstrong, director for art; and Mr. H. A. Bowler, assistant director for art.

We propose to briefly notice those drawings and models which have an application to architecture and decoration. Of these, the following analysis of the list of rewarded works may have some interest for our readers. Taking the sections of awards as set out in the published list, we commence with the gold medals. Twelve gold medals have been given for the best twelve works in the most advanced stages of study, and three of the twelve are allotted for subjects germane to this notice. William Moore, of Broseley, receives a gold medal for a design in outline for a ceiling. Andrew Erskine, of Manchester, receives a similar award for a set of designs for a cathedral church, and Edward Taylor takes a medal of the same grade for designs for the interior decoration of a building. Out of the sixty-eight silver medals awarded, eighteen are given for architecture and decorative designs and measured drawings, executed from buildings and monumental subjects. In the special division of honorary awards to students of the Training Class at South Kensington, twelve silver medal awards are made for the same class of work. Henry Collins, of Reading, gains a silver medal for his design for a grand pavilion; and honorary awards of this grade are made to John Lee for a design for a school of art, exhibition, and picture galleries, and to Alfred Hewitt for a design for a public school building. For modelled panels and friezes, silver medals and honorary awards have been gained by Richard Ferris, of Glasgow, and John Cassidy, of Manchester, and by the following students of the Training Class,—Edward Crompton, Edward Toft, Alexander Fisher, and John Fisher (two models for panels). John Willdigg's terra column, from Hanley, earns a silver medal, and the corresponding honorary award is carried off by William Busk, of the Training Class, for his design for a bronze and marble fountain. Two students of the Leicester School of Art, Ernest Gimson and Samuel Pick, earn silver medals for their designs for furniture and chimney-pieces, and Edgar Turner, of the West London School of Art, has a similar distinction for his design for a frieze. Two designs for wrought-iron gates come from Manchester School of Art, and are by John Macfarlane and Francis G. Moore, who each receive a silver medal. For furniture textiles, Sidney Mawson and Constantine Procopides, of Manchester, as well as Henry Holdsworth, of Halifax (for a carpet), have won silver medals. Henry Cadness, of Manchester, has the same prize for a design for a stained-glass window. Four students equally distinguish themselves by their execution of pen-and-ink drawings done from specimens of architectural decorative structures, the details of which have been carefully measured and worked out to scale. Charles B. Howdill and F. Mitchell, of Leeds, have produced drawings of the oak chancel-screen in St. John's Church, Leeds, a fine Jacobean carving, dated 1635, and apparently quite unappreciated by, if not unknown to, the numerous writers of guide-books or treatises about Leeds and the architecture of the neighbourhood. Hallam Pegg, of Nottingham, sends a set of measured drawings, with sections, showing the profiles of columns and mouldings, done from the choir-screen of Southwell Minster; and Herbert Tooley, of Great Yarmouth, has made a set of capital measured drawings from the Nelson Room of the Star Hotel at Great Yarmouth. All these have been rewarded with

silver medals. The number of bronze medals given this year is 109, of which twenty-six fall to architectural students and students of decorative design, as follows:—Alonzo Widlake, of Bristol, for a design for a church and a design for a free library, public-hall, and art museum; Egbert Cooke, of Maidstone, for a design for a concert hall; Edward Maidman, of North London, for a design for an artist's studio and house; J. E. Baron, of Sydney (South Australia), for a design for a city club-house; A. Hewitt (hon. award) of the Training Class for a design for a public school building; Maud Raymond, of Blackheath, for a modelled design for a frieze; Edward Nicholls, Francis Read, and Walter Smith, of Lambeth, for modelled designs for a panel; Arthur Hind of Leicester, for a design for a frieze; Charles Weston, of Manchester, for a design for a ceiling to be carried out in plaster work; Alexander Fisher (hon. award), of the Training Class, for a figure design for a frieze; John Fisher (hon. award), for a wax-modelled design for a panel and a clay-modelled panel as well; Thomas Barfield, of Leicester, for a happily-conceived design of hanging tankards and cross pipes for the wall paper of a "country public-house"; Arthur Jackson, also of Leicester, for a wall-paper design; Thomas Kerr, of Macclesfield, for design for tiles; Henry Penson, of Stoke-upon-Trent, for design for encaustic tiles; Allen Hollins, of Warrington, for a design for hearth tiles; and Agnes Guest, of West London, for designs for wall tiles; Lehman Oppenhenner, of Manchester, for mosaic floor design; Georgina Mair, of St. Thomas's, for stained-glass design; Frank Steeley (hon. award), of the Training Class, for a stained-glass design; James Blain and Richard Dickenson, of the Technical School, Manchester, for designs for furniture textiles; and Jesse Singleton, of Westminster, for design for a carpet. For measured drawings from buildings bronze medals have been awarded to James Tonge, Barrow-in-Furness, for a comprehensive set of drawings from St. Mary's Abbey, Furness; to William Footitt, for similar work, from Bishop Longland's Chapel, Lincoln; to Herbert Reid, of Wakefield, for measured drawings from the elaborately-ornamented fireplace and oak chest, —chiefly a mixture of sixteenth-century details, including a quaintly rich coat of royal arms, with the dragon as one of the supporters,— from the dining-room in Flockton Manor; to S. Carrodus, of South Kensington, for measured and carefully-tinted drawings of the lately-erected west end of Grosvenor House, abutting on to Park-lane, which subject has also been studied by Robert B. Dawson, John O. Poole, and Tracy Trotman, all of the Training Class, to whom hon. awards of bronze medals have been made. The winners of national book prizes number 181, but out of these only thirty-two are concerned with architecture and decoration; whilst seven out of the thirty-nine hon. awards of this class of prize made to students of the Training Class are made for similar work.

The display of architectural and decorative studies is this year not as strong numerically as in some previous years, though the one division of studies from buildings, and measured drawings, is larger than usual. This sort of work is evidently of much use to students in training their observation, and in cultivating finished and deliberate drawing. The original designs cannot, perhaps, be expected to show much originality or merit, and the ambitious selection by students of large subjects for treatment is not the most useful tendency to encourage in the student. A wider practice in overcoming, or in making suggestions of methods for overcoming difficulties in construction, in planning houses, and smaller edifices than great visiouary Gothic cathedrals, should be encouraged by the teachers of schools of art. And, as regards studies of architecture, ornament, and decorative work, the available and ample supplies of casts and photographs of typical works from all parts of Europe and the East, should prove a Fortunatus purse of ideas to those who at present appear to be too prone to rely upon half a dozen text-books on the subject. The modelled ornament in the National Competition is distinctly good in many specimens, such, for instance as Cassidy's (Manchester) panel, which has gained the first prize of the Plasterers' Company. This is far better than the vicious, if clever, performance of Toft, of the Training Class, who has carried off the second prize of the Plasterers' Company. Two Caryatids at the entrance to the exhibition, are highly commendable in spite of a manifest want of simplicity in treatment.

Upon the wall opposite the first range of screens are hung charming water-colour sketches of some half-dozen highly-decorated buildings at Rome, Florence, Milan, Mantua, and elsewhere, chiefly of the middle and late Sixteenth Century, which have been done by Mr. A. Wheatstone—the holder, in 1884, of a travelling studentship established for the benefit of students at the West London School of Art, by the Painters' Company. No better or more enjoyable work could be found for a deserving student than this set of sketches indicates. It is understood that the winner this year of the travelling studentship is Mr. Taylor, whose scheme of decoration, which gains a gold medal, we have referred to above. Three or four kindred scholarships have lately been established for the students of the Training Class at South Kensington; but, if they have been awarded, their holders make no show of work corresponding with Mr. Wheatstone's.

COMPETITIONS.

Fulham Vestry-hall Competition.—We are asked to call attention to the fact that the time for sending in drawings has been extended from September 21st to November 2nd of this year. The committee propose to request the President of the Royal Institute of British Architects to nominate a member of the Institute to assist them in deciding on the merits and cost of the several designs.

Slough Public Hall and Institute Competition.—In answer to advertisements for the above, twenty-six sets of designs have been received. The committee appointed Mr. F. W. Albury, F.R.I.B.A., architect, of Reading, assessor. The first premium of 25*l.* has been awarded to Mr. H. H. Cheers, Waldegrave Park, Teddington; second premium, 15*l.*, to Mr. Thos. R. Richards, 17, King-street, Cheapside; and the design under motto of "To-day" was placed third, Mr. F. Hemings, Fenchurch House, Fenchurch-street, being the author. The designs will be exhibited in the Board-room next week, from August 6th to 12th, instant.

CHELSEA PARK DWELLINGS COMPANY (LIMITED).

On a site in King's-road, Chelsea, formerly occupied by some cottages which had been condemned as insanitary, this company has just built a quadrangle containing sixty tenements, to be let as labourers' dwellings. Some trees on the site have been preserved, a central garden has been formed, and an effort made, by adopting a rural style, to avoid the barrack-like appearance too common in industrial dwellings.

The side facing King's-road contains the arched entrance gateway, six shops with basements and first-floor rooms for the shopkeeper, while two upper floors are occupied chiefly by rooms which are approached by balconies, and can be let singly or in groups of two, three, or four, to suit the varying needs of tenants. This side has a flat roof of Portland cement concrete to be used as a drying-ground.

The rear block, which is parallel to the one just described, consists of two and three-roomed tenements with sculleries, etc.

Connecting front and rear blocks are one and two-storied building, containing three-roomed tenements, sculleries, and sheds for storage and business purposes.

All floors are of iron girders and concrete. York stone has been used for staircases and balconies, the front of the latter being enclosed with Lascelles slabs. Red brick is the material used for walling, relieved with rough cast and tile hanging. Manholes give access to the drains at all junctions, which are thus accessible at any time.

Cast-iron pipes, jointed in lead, have been used where a drain passes under any building.

The drinking-water is drawn direct from the mains without the intervention of a cistern.

Laundry arrangements are provided for all tenements.

Doulton's Lambeth water-closet apparatus has been used throughout, and Barnard's diamond ranges. The buildings have been executed by Messrs. Mowlem, from designs by Mr. E. Hoole, and will be ready for occupation this week.

Illustrations.

ACCEPTED DESIGN FOR THE NEW R.C. CHURCH, SPANISH PLACE.

We give this week the interior and exterior perspective views and a plan of the accepted design for this church, by Messrs. Goldie, Child, & Goldie. We commented at some length on all the designs in an article in the *Builder* of July 18th, and it is unnecessary, therefore, to make any further comments here, except that we may add that in one particular respect the design complies more fully than any other with the requirement that the church should be "in the Early English style of architecture as practised in the twelfth and thirteenth centuries," a requirement which, in some otherwise able designs, was curiously ignored.

It is intended that the church should be executed as a stone-faced building within and without; within in ashlar work, with Purbeck marble shafts; without, in Yorkshire shoddy, or some analogous material. Some modifications will probably be made in the design, internally at all events, but these are not yet entirely decided on.

LEICESTERSHIRE FONTS.

The fonts illustrated by the accompanying sketches belong, with one exception, to the Early English period, which, according to Mr. Rickman, is less well represented in this respect than any other period.

The arrangement of detached shafts grouped round a central cylinder supporting the bowl of the font, no less than the characteristic dog-tooth ornament,—remarkable in the Twyford and Burrough fonts for its exposed position,— and the conventional leaf-carving, indicate the Early English style. Water was constantly kept in the fonts; they were, therefore, usually lined with lead and provided with wooden covers fixed with iron staples. The removal of these latter has in many cases broken away the stone, as at Twyford and Ashby Folville.

The capital of the nave arcade at Twyford is interesting. It seems possible that it and the well-known capital of Oakham Castle are the work of the same hand. They are of foreign rather than English design.

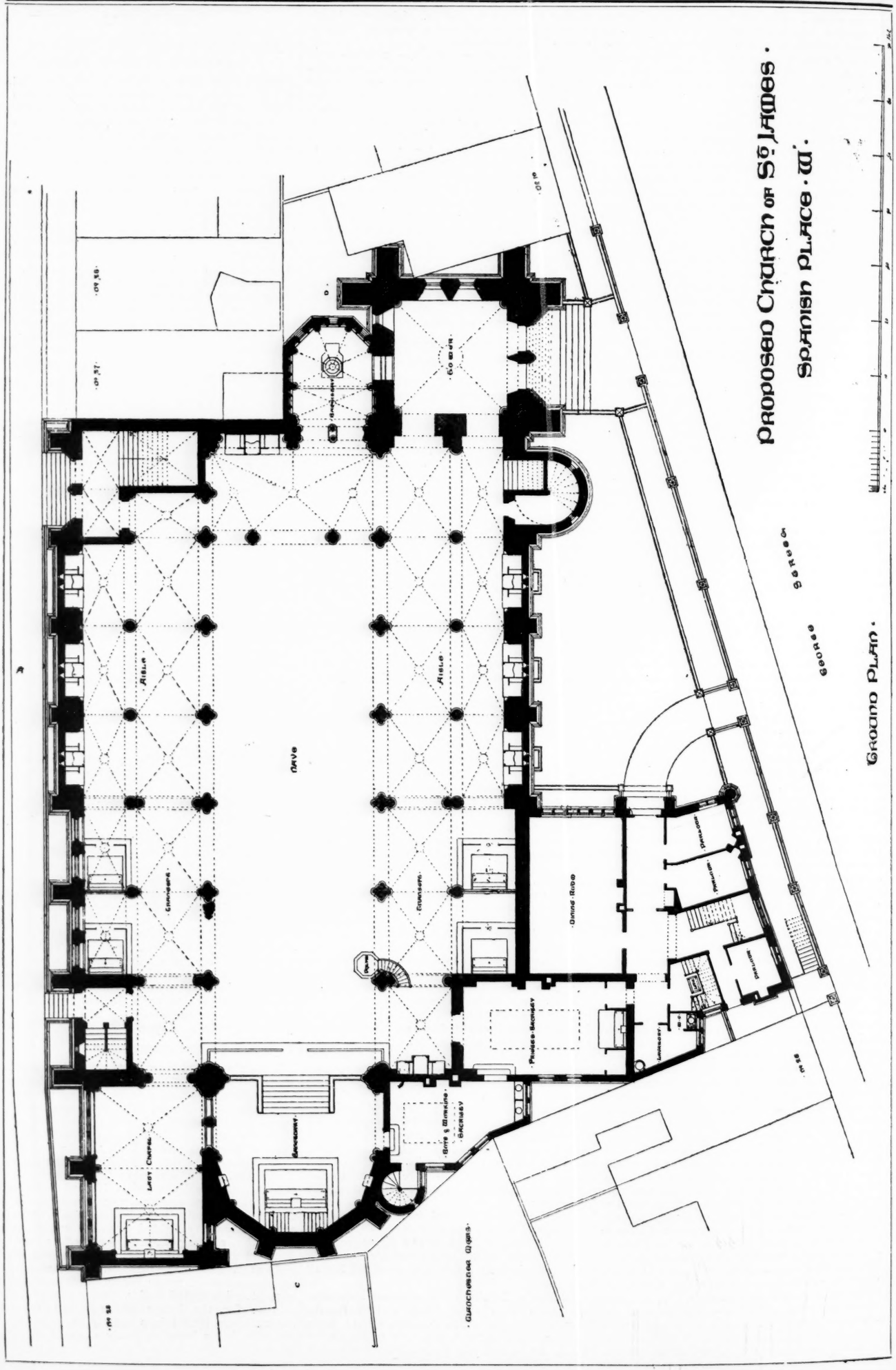
Some of the above fonts are figured in Simpson's "Ancient Baptismal Fonts" and Paley's "Baptismal Fonts."

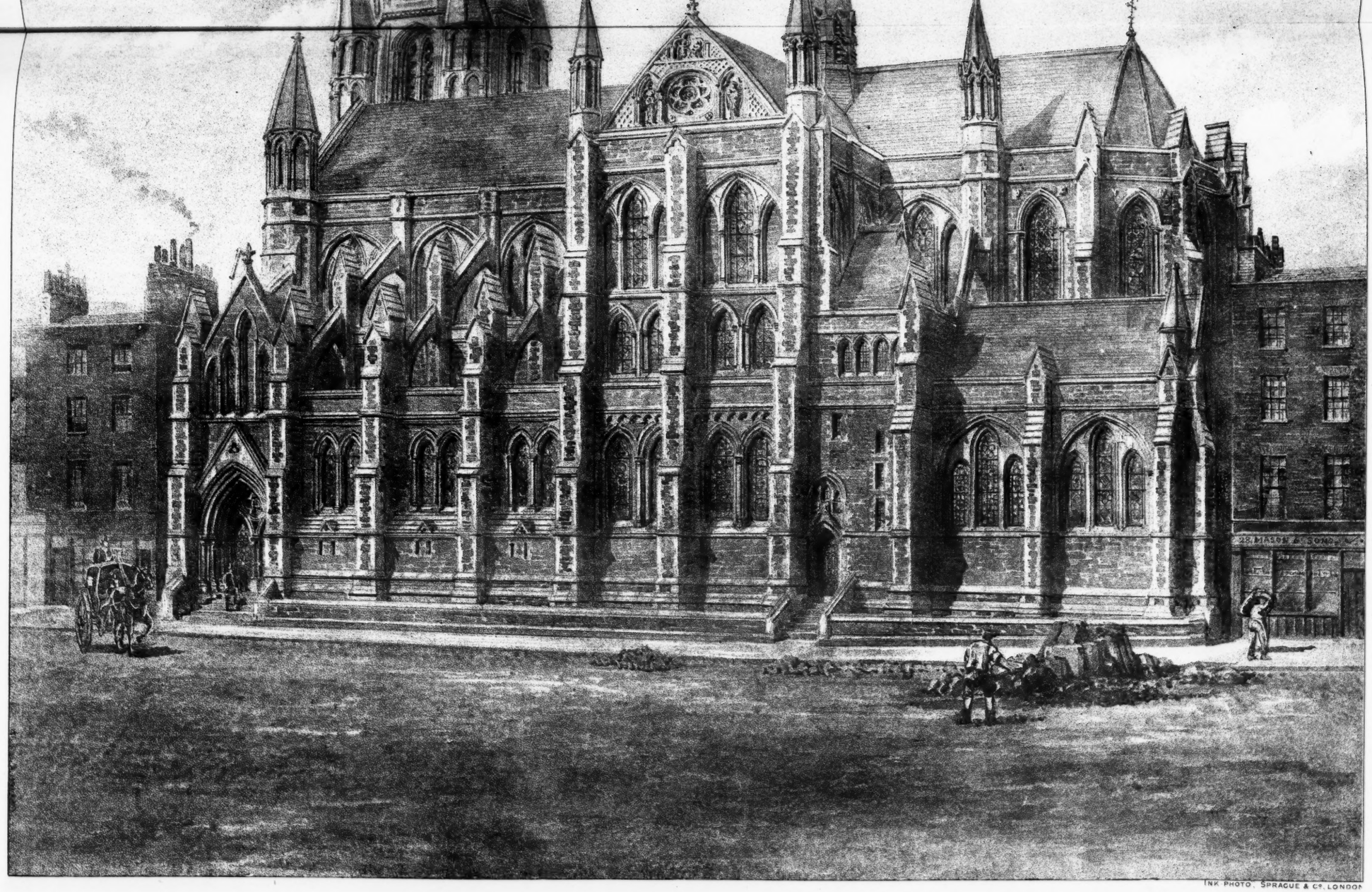
Mr. Rickman gives the following dates:— Ashby Folville, *c.* 1160; Twyford, *c.* 1200; Burrough, *c.* 1250.

EAST WINDOW IN ST. MICHAEL'S CHURCH, BOURNEMOUTH.

This illustration represents a stained-glass window, executed by Messrs. Mayer & Co., of Munich and London, in memory of the late Mr. George Durrant. The subject is taken from the text of Matth. xi., 28, "Come unto me all ye that labour and are heavy laden and I will give you rest." The design differs in style from what is usually understood by Munich stained-glass. It is free from any enamel or attempt at perspective, but all the glass used is of the best sparkling pot metal. The canopy work has been designed to be in harmony with the architecture of the church. The window is designed by Mr. F. Mayer.

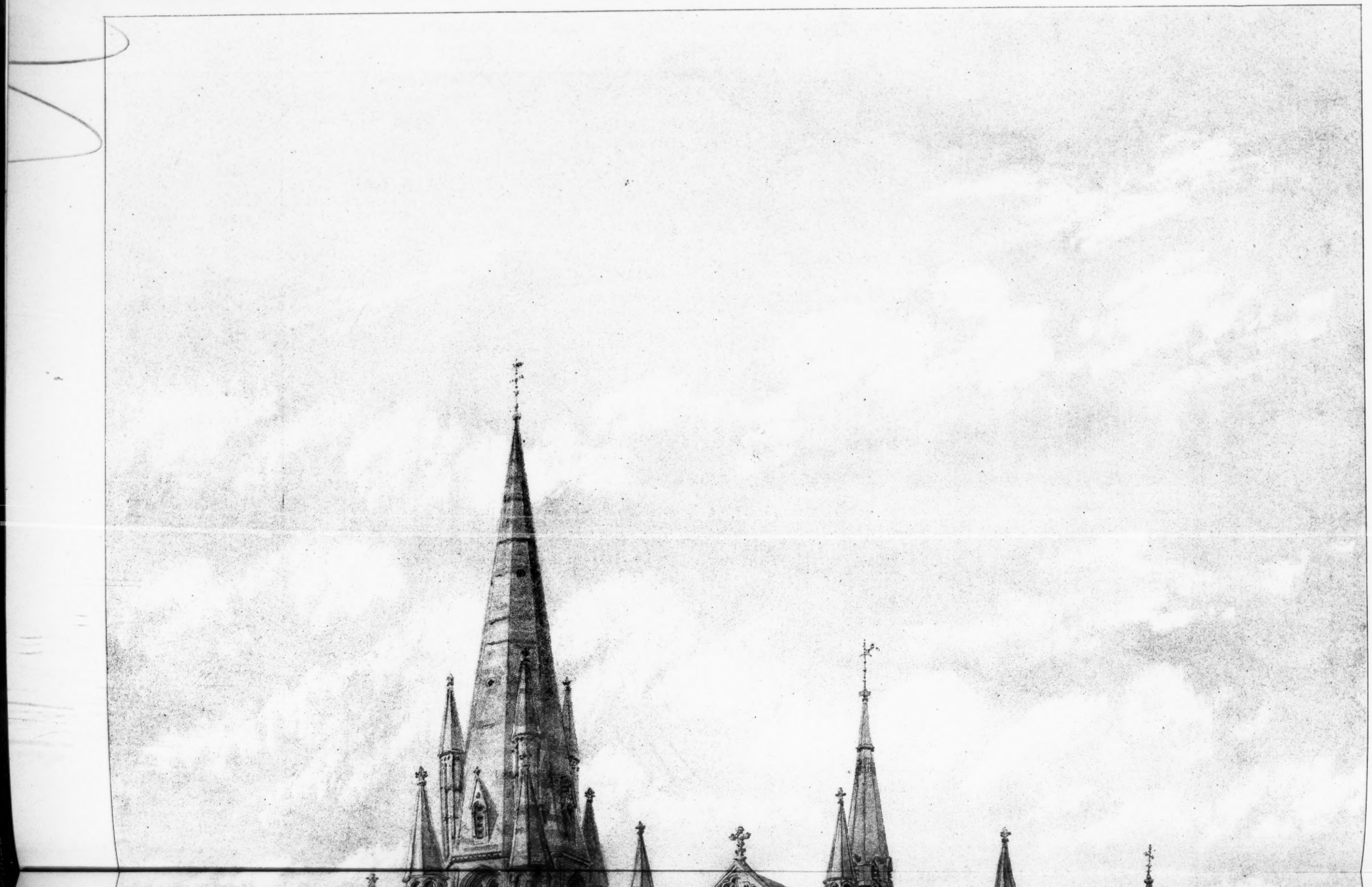
Electric Lighting at Marlborough House.—On July 24th the Electrical Power Storage Company fixed a temporary installation at Marlborough House. The total number of lamps fixed was 340, of which 280 were of 20-candle-power, in frosted globes, and sixty were of 10-candle-power. In the ball-rooms some of the lights were attached to the existing candelabra, and others were fixed round the cornice. In the Indian-room 10-candle-power lamps, silvered on one side, were placed inside the cases to illuminate the Indian jewels. The saloon was mainly lighted by lamps suspended from the existing fittings, but effect was obtained from a row of lamps placed out of sight at the foot of the pictures. The lamps in the conservatory, music rooms, and passages were placed in tinted shades. The whole of the current for the lamps was supplied from accumulators placed in a tent in the garden, the cells being brought, ready charged, from the works of the Electrical Power Storage Company at Millwall, a distance of about six miles.

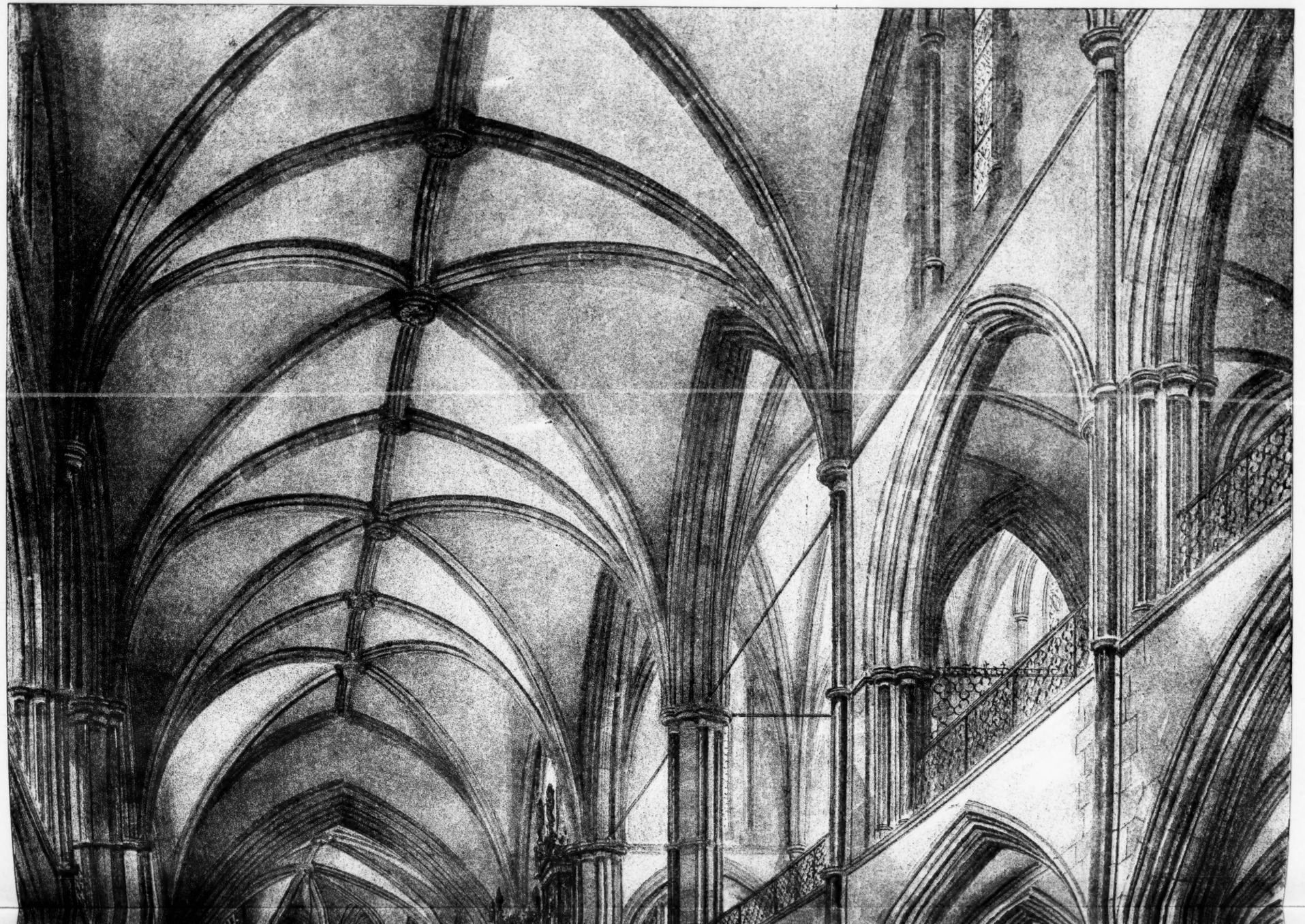

Proposed Church of St James
Spanish Place W.
Ground Plan.
George Street
Nave
Aisle
Aisle
Lady Chapel
Vestry
Choristers
Choristers
Priests Vestry
Boys & Almsmen Vestry
Organ Loft
Priests Vestry
Vestry
Vestry
Gardener
Gardener
Gardener



ACCEPTED DESIGN FOR THE PROPOSED ROMAN CATHOLIC CHURCH, SPANISH PLACE.
EXTERIOR VIEW.

MESSRS. GOLDIE, CHILD & GOLDIE, ARCHITECTS.





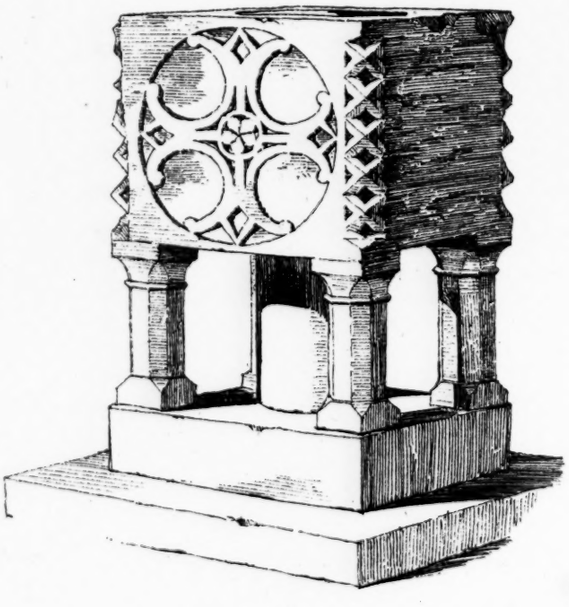
INK PHOTO SPRAGUE & Co LONDON

ACCEPTED DESIGN FOR THE PROPOSED ROMAN CATHOLIC CHURCH, SPANISH PLACE.

INTERIOR VIEW.

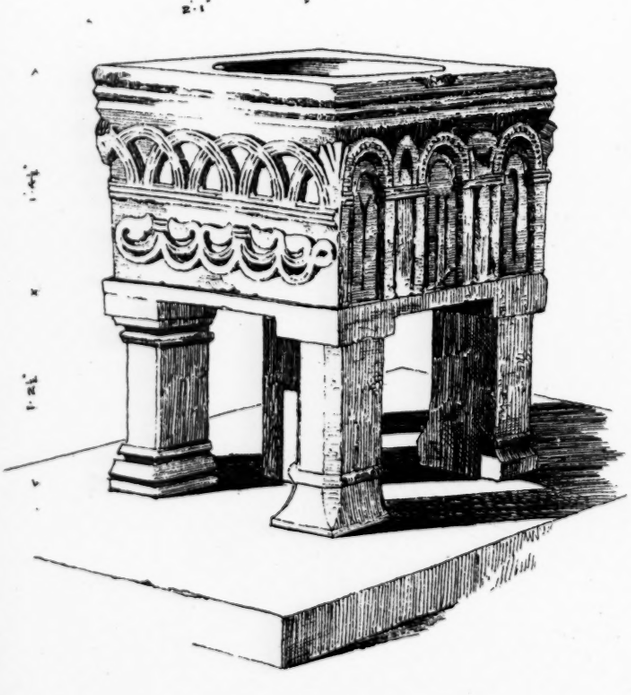
MESSRS. GOLDIE, CHILD & GOLDIE, ARCHITECTS.

Leicestershire Fonts.

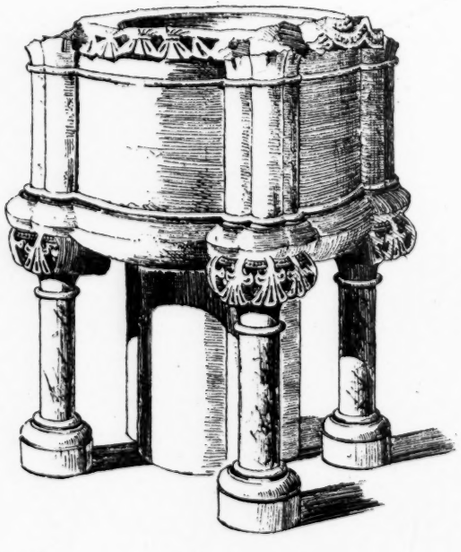


Twyford Church.

Capital to nave arcade
Twyford Church.



Ashby Folville Church.



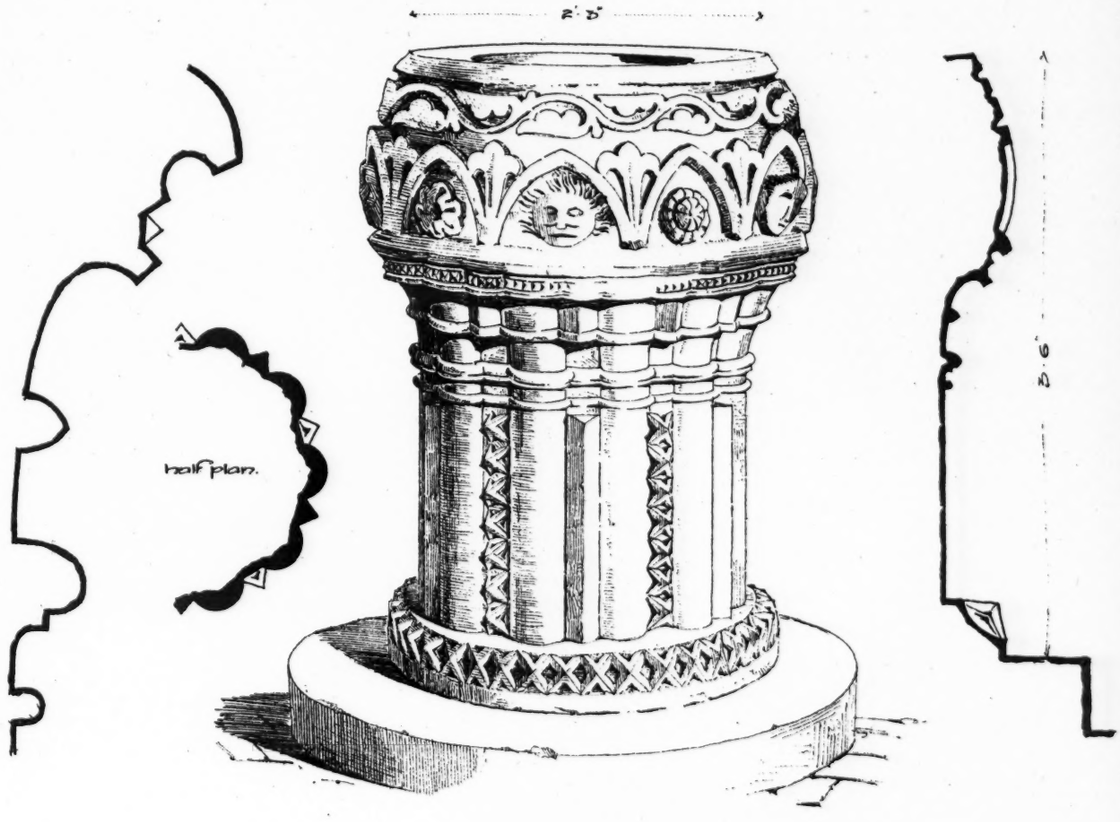
Rearsby Ch.

March 1885.

W. H. Bidlake B.A. delr.

C.F. Kell Photo-Lith & Printer, 8, Castle St Holborn London, E.C.

Leicestershire Fonts.



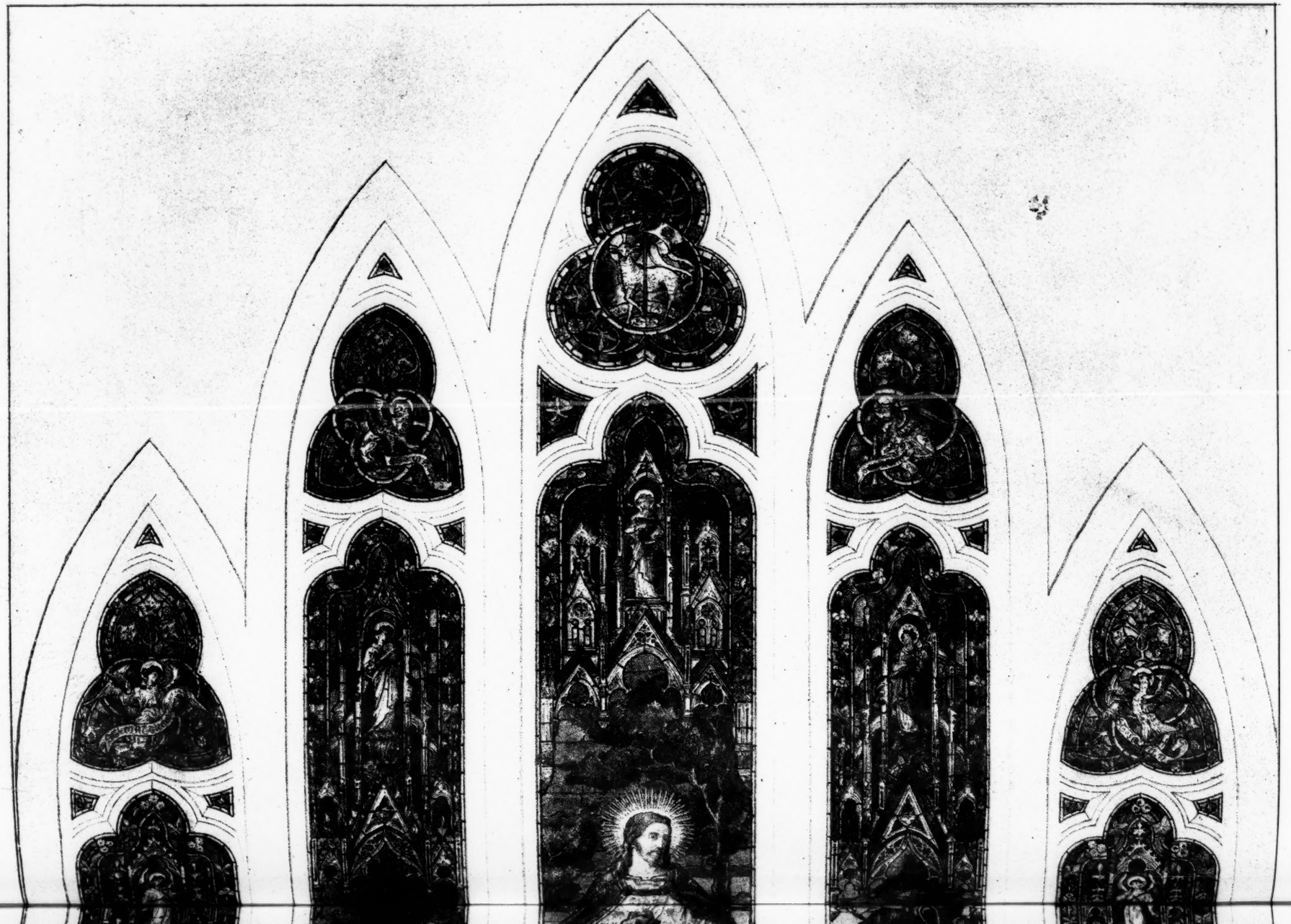
Burrough Church.

All Saints Ch: Leicester.

St Mary's Ch: Leicester.

W. H. Bidlake B.A. delt.

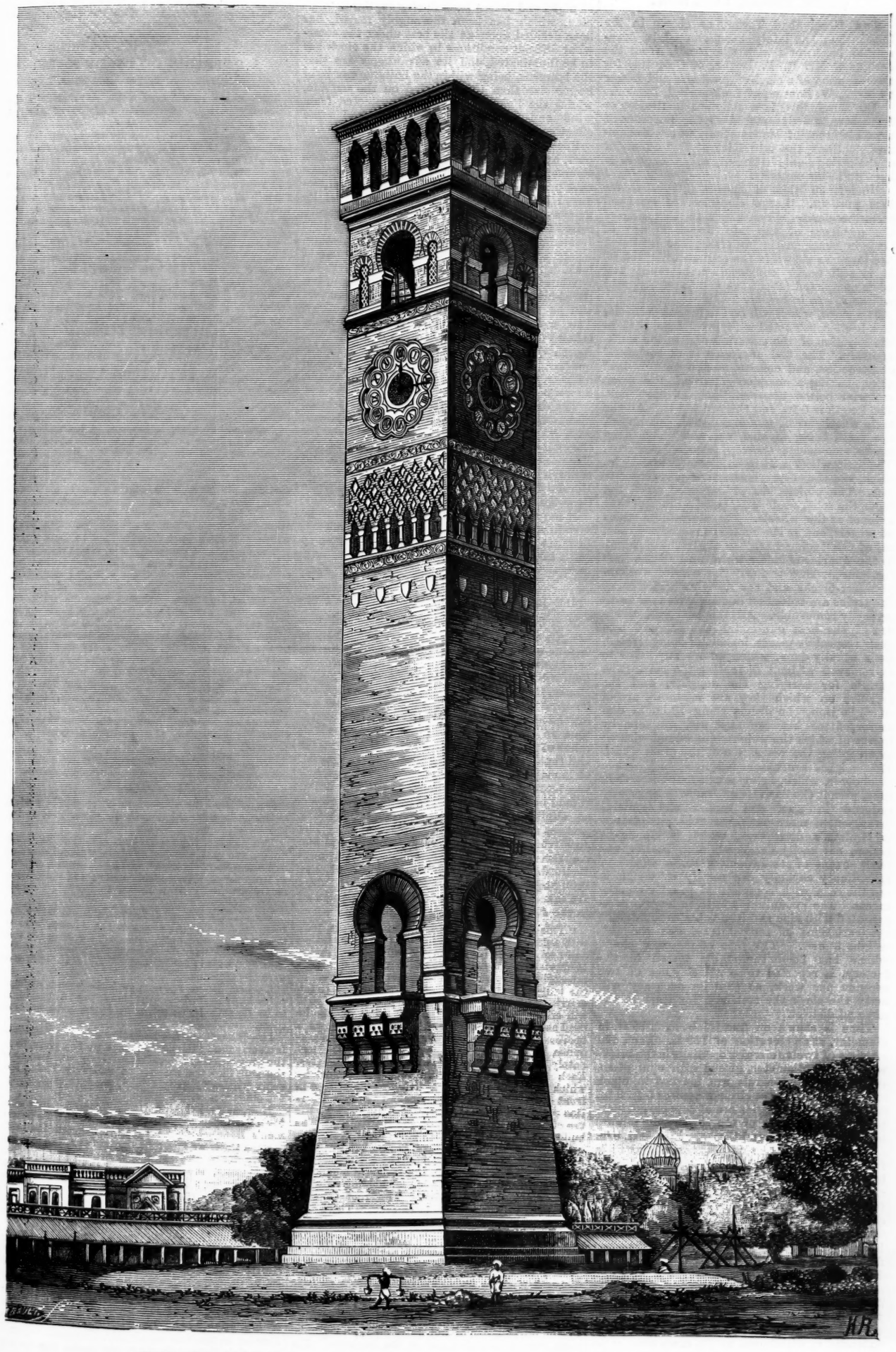
C. F. Kell Photo-Lith & Printer, 8, Castle St Holborn, London, E.C.



"INK-PHOTO". SPRAGUE & Cº, LONDON.

EAST WINDOW, ST. MICHAEL'S CHURCH, BOURNEMOUTH.

EXECUTED BY MESSRS. MAYER & CO.



THE HOSEINABAD CLOCK-TOWER, LUCKNOW.—Mr. R. R. Bayne, Architect.

CLOCK TOWER, LUCKNOW.

The Hoseinabad Tower, as shown in the illustration, has lately been erected in ornamental brickwork with tile bands, from the designs of Mr. R. R. Bayne, of Calcutta, for the reception of a clock of great size and power by Mr. J. W. Benson, of Ludgate-hill, London.

The Hoseinabad is a religious institution or Imambára, a shrine sacred to the purposes of the Shiah sect of Mohamedans, where Mohammed Ali Shah, the late King of Oude, founder of the endowment, is buried, and the place is kept up in his memory.

He left 36 lakhs of rupees (360,000*l.*) for that purpose. Large charities are defrayed from the income, which also maintains some of the members of the late Royal Family of Oude in considerable position. The height of the tower as shown in the engraving is 181 ft. It is still under construction, however, and when completed (about the middle of August) will be 221 ft. in height.

The clock, which will be the largest in India, has been constructed with great care, both in the selection of the materials and in the workmanship. The bed or frame is of horizontal construction, and consists of two wrought-iron sides, having a massive pillar of the same material bolted between them at each end. The length is 6 ft., and the width 3 ft. All the train wheels are of gun-metal, well hammered, the teeth being divided, cut, and polished by steam machinery, thereby insuring accuracy. The main wheel is 24 in. in diameter and 1½ in. thick, and the other wheels are of proportionate size. The pinions are of hardened steel, cut from the solid, made and polished in the same manner as the wheels. There are three trains of wheels, one in the centre to record the time, called the "going part," to the right of which is the quarter-chiming train, and to the left the hour-striking train. The barrels work in plummer-blocks, and the uprights which carry the trains are bolted on in such a manner as to be easily removable. All the bearings, which are of the best gun-metal, are screwed into their respective places, instead of being riveted, as is usually done, which allows any arbor to be removed without disturbing the rest. The barrels for carrying the weights, and the spindles on which they are mounted, are of wrought iron, the drums being 12 in. in diameter, fitted between caps and ratchets, by means of which the weights are wound without interrupting the revolution of the great wheel. The weights are suspended by specially-made steel cords, which, being much less bulky than rope, permit the barrels and frame to be greatly reduced in size, and render the general arrangement more compact. The escapement is Graham's dead beat, which is simple in action, not easily deranged, and, in the unlikely event of its becoming so, a workman of ordinary capacity can rectify it, which is not the case with complicated gravity escapements. The pendulum is 14 ft. in length, compensated with zinc and iron tubes to counteract the variations of temperature, and the bob weighs 3 cwt. The rate of the new clock, which has been thoroughly tested in the factory, is reported to be a losing one of two seconds per week, so that its accuracy will make the clock the standard for time in the city and district.

Time is shown on four dials, each 13 ft. in diameter, at an elevation of 120 ft. Each dial consists of twelve circular openings in the brickwork of 2 ft. diameter, glazed with opal glass, on which the numerals are marked in black enamel. The centre circle measures 5 ft. 9 in. in diameter. The hands are of copper, counterpoised on the inside of the tower: the minute hand measures 6 ft. and the hour hand 4 ft. 6 in.

As it is impossible to illuminate the dials from behind, owing to the large extent of brickwork which divides each of them into a large central portion and twelve smaller dials for the numerals, a special method has been devised for the purpose. On the bell-chamber floor above the clock-room are eight copper lanterns, two for each dial, having plate-glass fronts, and silver-plated holophotal reflectors. From each pair of these lanterns a powerful stream of light is thrown upon an exterior reflector placed at such an angle as will project the light on the centre of the dial. These outside reflectors are movable, all four being extended or withdrawn at the same time by an arrangement of wheels and cogs worked by the attendant, so that the reflectors and the toothed rods or arms which support them are projected at night and drawn back during daylight. This plan, which has been thoroughly tested, has been decided upon as the best under the somewhat difficult conditions in which the clock has to be illuminated, and its advantages are that the lanterns, being within the building can be of larger size than if suspended on the outside, whilst the light, being better protected from wind and rain, will be steadier and more effective.

Special care has been devoted to the striking part, on which the efficiency of a public clock so much depends. The repeating work is on the rack principle. A further improvement introduced is the striking from the great wheel, by means of which the hammers are sufficiently raised to bring out the full sound of the bell. Immediately above the dials is the bell-chamber, where the bells are suspended upon a frame of teak.

When the clock is fixed and in going order, the chimes known as the Cambridge Quarters will be heard in Lucknow for the first time. The weights and notes of the bells are as follows:—Hour bell, 20 cwt. 2 qrs.,—E♭; fourth quarter, 8 cwt. 3 qrs. 11 lb.,—B♭; third quarter, 8 cwt. 0 qrs. 12 lb.,—E♭; second quarter, 6 cwt. 0 qrs. 12 lb.,—F; first quarter, 5 cwt. 3 qrs.,—G.

The clock-case, which is of teak, bears a brass plate, on which is this inscription:—"This tower, with its clock and bells, has been erected for the citizens of Lucknow by the trustees of the Hoseinabad endowment, at the suggestion and through the influence of Major Norman T. Horsford, of the Bengal Staff Corps and Oude Commission, 1881."

It may be added that the clock is now to be seen in action at Mr. Benson's Steam Factory, Ludgate-hill, previously to its being sent to India in the autumn.

THE BARTON ALMSHOUSES, TURVEY.

This building, of which an elevation and plan are given on page 171, which was opened three or four weeks ago with "high festival" in its neighbourhood, is the gift to the district of Bedford by Mr. Jas. Barton, now of Oakley House, Camden-road, London, who learned his business as an apprentice in Bedford, and has expended part of his fortune during his lifetime in providing this institution "for the relief of twenty poor persons of good character and reputation, being inhabitants of the parish of Turvey and of the town of Bedford." It was the intention of the founder that the building should be in Bedford, but, as he could not obtain an eligible site, it has been erected on the present site in Station-road, Picts-hill. The architect is Mr. J. Moye, of London, and the contractor Mr. S. Foster, of Kempston, near Bedford. The cost, with the endowment, has been about 23,000*l.* The following particulars are taken from an official statement published in the *Bedfordshire Standard*:—

"This Institution originated in the year 1881 with a desire to provide an asylum for the deserving and necessitous poor of Turvey and Bedford, and a Memorial Hall in connexion, the purposes of which are explained by the two tablets erected in front of the building. It is designed to accommodate ten married and ten single pensioners. Each inmate will occupy two rooms—that in the front to be used as a living room, and the one at the back as a bedroom—and will also have the use of the washhouse, with kitchen, scullery, &c., combined, alternately, and in conjunction with the other inmates. Each tenement will contain four pensioners, by which arrangement all the living-rooms will be in front of the block of Almshouses. The central portion of the building is intended and fitted up for the use of the Superintendent of the Institution. The building is in red brick, with stone dressings. The central block on the first floor has an oriel window for the Board-room, surmounted by a turret clock, by Benson, of London. In the rear of the building is the Memorial Hall, intended for holding religious services and entertainments. The roof is oak-timbered, panelled with pitch-pine. There are three three-light windows on each side, with glazing in quarry lights, and upper parts in coloured glass. At one end is an organ-chamber, with new organ of two full compass manuals and independent pedals, in oak case, with decorated 8-ft. open diapason pipes in front, above which is a circular stained-glass window, and on each side of the organ are ante-chambers. The organ was built by Messrs. Gray & Davison, London. The warming is effected by the introduction of hot-water pipes arranged in tiers, two on each side, and at the entrance. The hall and its approaches are lighted by gas and thoroughly ventilated. On the first-floor is a spacious Board-room, with open fireplace, and tiled hearth at each end, and lighted by gas, where all meetings in connexion with the Institution are held."

A QUESTION OF TRADE MARK.

SUMSION *v.* PICTOR AND SONS.

This was a case heard a few days since in the Chancery Division of the High Court of Justice, before Sir James Bacon.

The plaintiff, Mr. Isaac Sumsion, carries on business at Bath as a stone merchant, and the defendants are Messrs. Pictor & Sons, Bath stone merchants, Box, Wilts. The question in dispute had reference to the use of the words "Monk's Park" as a description of the Bath stone raised from the quarries of the respective parties on the Monk's Park Estate, Corsham, belonging to Sir Gabriel Goldney, bart., M.P.

The plaintiff moved to restrain the defendants from selling or offering for sale any stone under the name "Monk's Park" or "Monk's Park Stone," other than stone obtained from the plaintiff's quarry, and to restrain them from using the words "Monk's Park" as the name or description of any of the defendants' stone; and also that the defendants might be restrained from infringing the plaintiff's registered trade mark. The plaintiff claimed that he had the only quarry in Monk's Park, Corsham, that he alone was able to supply the genuine Monk's Park stone; that Monk's Park stone had acquired a high reputation and was a mineral specially adapted for weight-bearing purposes and for resisting carbonic acid gas and atmospheric influences, and was in great demand for large buildings; that he had registered a trade mark of which the words "Monk's Park" formed a prominent part; that he had first adopted the words "Monk's Park" as applied to his stone, and that the defendants had no quarry at Monk's Park, and that they had been selling stone as Monk's Park which was, in fact, not Monk's Park stone, and he claimed the exclusive right to the words "Monk's Park" as applied to Bath stone.

The defendants contended they had a right to use the words "Monk's Park"; that they had ninety-six acres of the minerals of the Monk's Park Estate, whilst the plaintiff had only thirty acres; that the plaintiff had no exclusive right to work the minerals at Monk's Park, or to use those words; that their minerals were within 300 yards of the plaintiff's; that they were working the same deposit of stone, and that it was in every way equal in quality to the plaintiff's. They also said they had not infringed the plaintiff's trade mark, and that they had been selling their stone for two years under the name of "Pictor's Monk's Park," with the knowledge of the plaintiff.

After several days' hearing, the Vice-Chancellor refused the motion, the question of costs being reserved.

BRIGHTON.

Sir,—May I be allowed to enter a mild protest against the suggestion that Brighton ever had a Roman *castrum*?

The Roman lines of communication in South Sussex ran east and west; there was an important legionary way, through the Weald, from Pevensey to Bramber, and on to Chichester; and there was a native trackway from Lewes to Steyning, which crossed the heights.

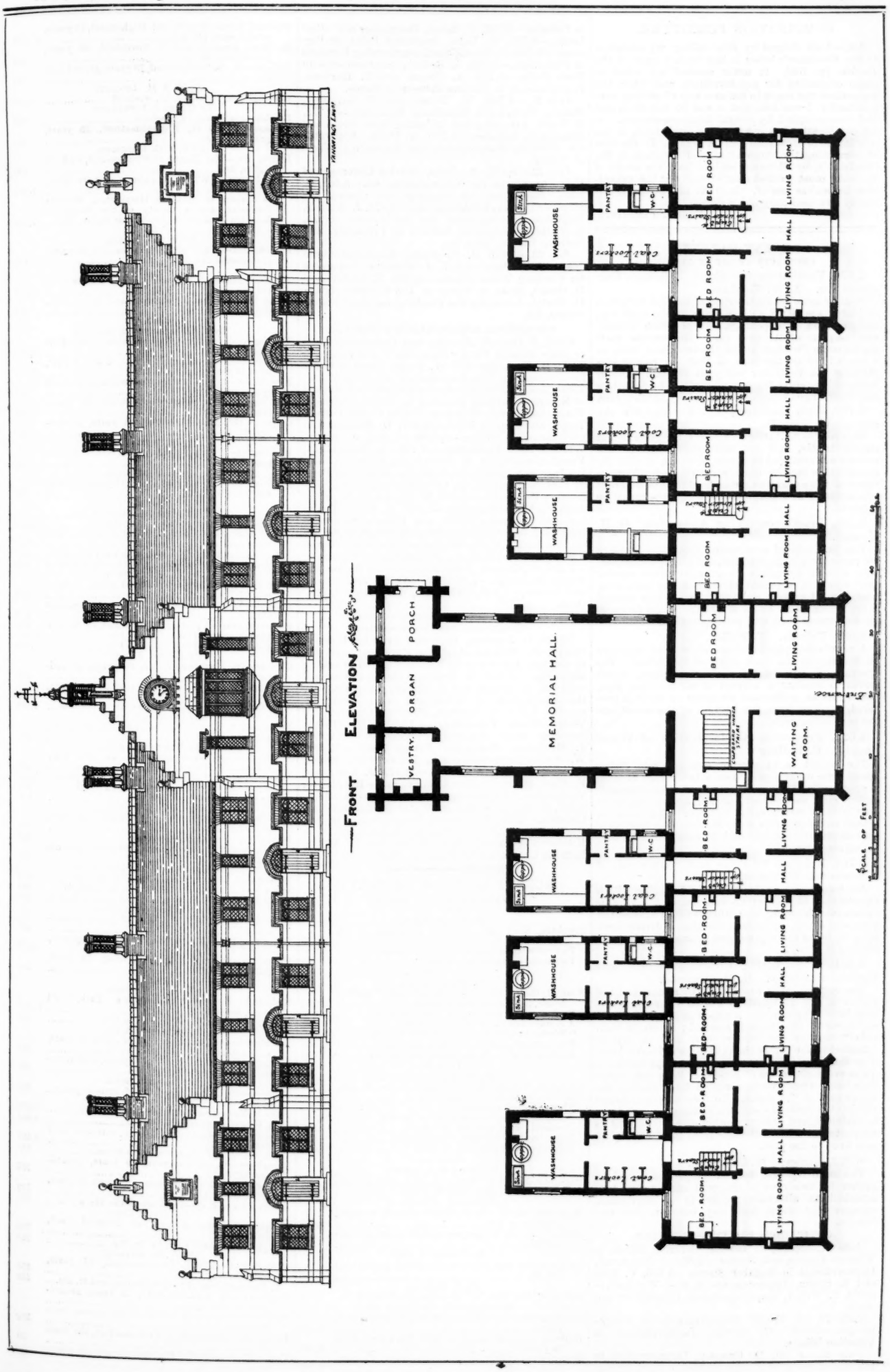
We have, north of Brighton, the old Shoreham road, which, after dipping into the "Level," rose up the race-hill, and reappears as "the Drove"; this I consider to have been an ancient way for cattle used by drovers; so I cannot connect Stane or Steine with the Romans.

I.—The Steine appears to have been a landing-place like the Portsmouth "hard," and I consider it to be Brighthelm's-*stein*, not a hythe or haven, or a town.

II.—Stanmere—Lord Chichester's fine domain—is a compound; the prefix means a stony place, from the grey whethers once more freely scattered over the soil, like the sarsens on Salisbury Plain; the suffix "mere" means a lake, pond, or pool, as, by the church, now.

Now, as to Brighton itself, I cannot admit of a town beneath the cliffs; no doubt, there were fishermen's huts, clustered together beneath the cliff, such as those we find still lingering on, in face of a certain doom, at Hastings, beneath the cliff. But South-street, the Fort, and all other recognisable structures, now lost for ever, *must* have been on higher ground, or on the cliff. A. Hall.

Residential Flats, Great Russell-street.—The American Elevator Company have recently been awarded the contract for one of their Standard Hydraulic Elevators for passenger use, for the building of residential apartments in Great Russell-street, now being erected by Mr. John T. Chappell. This elevator is to be similar to the one which Mr. Chappell ordered from this Company some two years ago for his building of residential apartments at Brighton.



THE BARTON ALMSHOUSES, TURVEY, NEAR BEDFORD.

COMBINATION FURNITURE.

Sir,—I am obliged by your calling my attention to Mr. Goodman's letter in last week's issue of the *Builder* [p. 138]. It never crossed my mind to claim originality for my furniture, and when the suggestion was made to me as a way of getting over a difficulty I was told that it was no new idea, and had been adopted by several furniture-makers. If my combination has any merit, it is, I think, in the way it has been worked out in detail. If the idea of combining the three articles of furniture is Mr. Goodman's, by all means let him have the credit of it; but I must protest most strongly at the expression he makes use of, viz., that my design is evidently a revised copy of his sketch.

Fredk. Pinches.

RECENT PATENTS.

ABSTRACTS OF SPECIFICATIONS.

2,176, Ventilators for Ships, Buildings, Carriages, &c. A. W. Kershaw.

Four or more concentric rims of vertical deflectors or plates are fitted with a cover on the shaft top, and provided with openings, each of which is opposite the plate of the next rim. The central shaft passes some distance above the ventilator base, or a rim is fixed on the base, so that the rain or seas striking the ventilator will pass through without being able to enter the central shaft. The deflectors may be arranged vertically, horizontally, or otherwise.

3,738, Bins, Canisters, and Fittings for the same. W. Parnall.

This relates to fittings of shops for grocers and similar trades, and the internal fittings of the cabinet are arranged in chutes or slides, so that the commodities may be quickly distributed. Various forms of the apparatus are devised for the different commodities and purposes for which they may be required.

3,766, Smoke-consuming Apparatus. H. H. Hazard.

The products of combustion from the fireplace are passed to a large chamber, and partly condensed, after which the remaining portion is either carried away by a flue, or passed through a box containing a mixture of caustic soda and lime. This method is applicable to all kinds of fireplaces and furnaces for consuming their own products of combustion.

4,031, Urinals. T. Waller.

A ventilating pipe is connected with an aperture on the top of the back plate of the urinal. The aperture is covered by a slanting plate, which serves to conduct a current of air into the pipe. Sometimes an additional air-space or tube is provided, leading from the bottom of the urinal into the ventilating pipe.

4,622, Preventing Contamination of Water Supply. C. Ridleagh.

The object is to prevent sewage gases being drawn into water-pipes when a temporary vacuum is produced in them. At every outlet or communication with water-closet, urinal, &c., a single or double iron return-valve is fixed. The main or branch water-pipes are connected with vent columns, such as lamp-posts. In each column is fitted a self-acting air-valve.

4,764, Holdfast for Pipes and Spouts. J. R Johnson and W. Urton.

An iron spike is bent at right angles. Both extremities of this spike are tapered. One is driven into the wall. The other is fitted against the pipe, and a ring, embracing the pipe, is driven down upon it, being thereby wedged against the pipe, and holding it firmly.

5,931, Constructing Concrete Domes and Circular Buildings. R. M. Ormerod.

The vertical walls are struck by a mould at the end of an arm attached to a loose sleeve on a vertical bar. The concrete is added in layers until the springing of the dome is reached; a post is then substituted for the vertical bar, and an arm is attached to the top of the post by a universal joist. The building is continued in layers as before, a quick-setting mixture of plaster of Paris and haired lime being employed to form an inner shell of the upper part of the dome. To form elliptical domes the joint is lowered a suitable distance as each layer is complete, and to form Gothic domes the joint is supported at a short distance from the centre by an arm fixed to the post.

6,692, Girder. W. Campbell.

The usual top and bottom flanges are braced together by two rows of diagonal and vertical bars attached at alternate points to a longitudinal stringer bar about half-way between the two flanges.

APPLICATIONS FOR LETTERS PATENT.

July 17.—8,639, J. Lewtas, Securing Blinds to Window Frames and Sashes.—8,640, J. Richmond, Improvements in Register Stoves.—8,655, V. Klàn and R. Steitz, Improvements in Sash Windows.—8,662, T. Weller, Improvements in Closet Pans and Seats.

July 18.—J. Hines, Improvements in Weighbridges.—8,691, G. Otway, Improvements in Venetian Blinds.

July 20.—8,730, D. Crossley, Improvements in the Manufacture of Bricks, rendering them Porous or Cellular.—8,735, C. Bauer, Room-door and other Locks.—8,737, W. Lake, Improved Paint or Pigment.—8,740, G. Raven, Smoke-consuming Furnaces or Fireplaces.—8,748, A. Reddie, Improvements in Rock Drills.—8,753, A. Cooper and T. Harbord, Improvements in Cooking Ranges or Stoves.

July 21.—8,763, W. Woods and H. Grimsley, Making Terra-cotta Sepulchral Memorials.—8,772, E. Webb, Attaching and Adjusting Door-knobs and Handles to Spindles.—8,780, A. Paine, Apparatus for Flushing Water-closets, and Preventing Waste of Water.

July 22.—8,852, A. Deas, Service Cisterns and Valve Apparatus for Water-closets, &c.—8,868, C. Sims, Mechanism for Opening and Closing the Doors or Covers of Cabinets, &c.—8,873, J. Wellett, Improved Drawing-board and Set Square.—8,874, R. Stanley, Improved Method of Preparing and Burning Bricks, Tiles, &c.

July 23.—8,876, J. Hookham, Improvements in Water-closet Pans.—8,877, J. Sturrock, Apparatus for Flushing Water-closets.—8,899, E. Colton and D. Bostel, Seats of Water or Dry Closets.—8,900, D. Bostel, Actuating the Flushing-valves of Water-closets, &c.

PROVISIONAL SPECIFICATIONS ACCEPTED.

6,837, J. Corbett, Jointing and Connecting Lead or other Metallic Pipes without the Use of Solder.—7,033, G. Hookham and W. Touks, Lines or Cords for Suspending Window Sashes, &c.—7,082, J. Ebner, Anti-dry-rot Waterproof Material and Method of Securing Parquet Flooring to Stone, Concrete, Wood, &c.—7,456, C. Bailey, Fixing Closet Pans to Traps, and Supply Pipes.—7,467, H. Buchan, Improvements in Water-closets.—7,552, J. Sharp, Window Sash Fastenings.—7,724, J. Macmeikan, Ventilators.—8,044, E. Stewart and others, Affording Ingress to and Egress from Rooms or other Parts of Buildings.—6,639, F. Lyte, Manufacture of Refractory Bricks, &c.—6,833, W. Blackwell, Improvements in Window Sashes.—6,930, A. Allom, Draining and Cleansing Public and Private Swimming Baths.—7,409, J. Brooke, Oval or Elliptical Soldering Machine.—7,475, E. Dutton, Improved Bench Vice.—7,485, A. McLean, Manufacture of Pigments.—7,900, H. Cooper, Ventilating Private Houses and Public Buildings.—7,966, W. White, Fire Grates and Stoves.—7,983, W. Cook, Improved Bakers' Oven.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to opposition for two months.

11,640, G. Jameson, Improved Trap for Pipes.—12,246, F. Wilkins, Asphalte Pavement.—13,147, R. Oakley, Apparatus for Ventilating and Warming Buildings.—13,355, W. Smith, Waterproof Cement.—13,492, A. French and J. Hannay, Apparatus for the Manufacture of White and other Lead Pigments.—7,506, G. Redfern, Flushing Cisterns and Water Waste Preventers.—10,801, H. Owens, Securing Door Knobs to Spindles.—12,097, J. MacLaren, Composite Paving Block.—12,888, W. Smith, Improvements in Bricks, Tiles, Stones, or other Building Materials.—13,377, J. Kemp and F. Fissi, Sanitary Pipe Connexions.—15,871, W. Withington, Improvements in Water-closets.—2,767, E. Reynolds, Syphon Water Waste Preventer Cisterns.—4,530, W. Stanley, Improvements in Protractors.—5,315, R. Perrot, Improvements in Kitchen Ranges.—7,148, C. Wilkes and W. Millar, Metallic Compound for Flooring, Paving, &c.

RECENT SALES OF PROPERTY.

ESTATE EXCHANGE REPORT.

July 10.

By Messrs. Cobb.

Teynham, Kent—The freehold residence, "The Walnuts"	£630
Two cottages and orchard land, 10 acres	2,790
Two cottages and a plot of land	305

July 14.

By Messrs. Cobb.

Near Hythe, Kent—"The Royal Oak" public-house, and 8a. 0r. 15p. freehold	2,100
Enclosures of land, 16a. 0r. 13p., freehold	970
A cottage and 0a. 1r. 26p., freehold	120
"Westenhanger Farm," and 308a. 2r. 12p.	15,050
Two cottages, and 4a 3r. 24p., freehold	560
Enclosures of land, containing 45a. 2r. 10p.	1,395

July 18.

By P. D. Tuckett.

Artington, Surrey—Freehold house and 5a. 3r. 24p.	1,250
Shalford—Enclosures of land, 16a. 2r. 35p.	1,210
Three freehold cottages	350
"Poplar Farm," containing 31a. 0r. 30p.	3,000
Freehold wharf, and 13a. 2r. 33p.	850
Three freehold cottages, with gardens	525
Several cottages, and 5a. 0r. 14p.	1,505

July 20.

By Moss & Jameson.

Highgate—8 and 9, Highgate Rise, and ground-rents of 2*l.* a year, term 28 years	1,470

By Murrell & Scobell.

Highbury—44, 46, and 48, Hamilton-road, 74 years, ground-rent 25*l.*	1,695
Brixton-hill—39, Tregenna-street, 70 years, ground-rent 6*l.*	200

By Tunley & Co.

Islington—42, Barnsbury-road, 5 years, ground-rent 10*l.* 10s.	55

By J. Morgan.

Sutton—"The Grange," and 3¼ acres, freehold	4,000

By Debenham, Tewson, & Co.

Kensal-green—Ground-rent of 80*l.*, reversion in 81 years	2,700
Holborn—A profit rental of 342*l.* 10s. a year, term 34 years	4,120
Blackfriars—53 and 55, Stamford-street, 37 years, ground-rent 2*l.*	1,220
Portland Town—55 to 61 odd, High-street, 16 years, ground-rent 15*l.* 12s.	£1,355
St. Mary Cray—6 and 7, Northfield, 86 years, ground-rent 5*l.*	425
Kilburn—26, Cambridge-road, 73 years, ground-rent 11*l.*	500

By E. & H. Lumley.

Kensington-square—No. 11, freehold	1,500

By Hards & Jenkinson.

Brockley-road—No. 74, freehold	850
Chelsea—13 and 14, Blenheim-street, 23 years, ground-rent 8*l.*	450

By S. & G. Kingston.

Hunts, &c.—The Manor of Stranground, with its rights, &c.	400
The Manor of Whaplode Abbatis, with its rights, &c.	1,265
The Manors of Moulton Harrington, Moulton Bewsolas, and a moiety of the Manor of Moulton Dominorum, with their rights, &c.	1,000

July 21.

By W. H. Moore.

Euston-road—46 and 47, Hastings-street, 21 years, ground-rent 14*l.*	450

By G. Wigley.

Winslow, Bucks—"The Selby Lodge Estate" of 167 acres	17,500
The brickyard, and premises, and 3a. 1r. 39p., copyhold	450

July 22.

By T. G. Wharton & Sherrin.

The freehold residence, "Southfields," and about 20 acres	18,000
Wandsworth-road—A profit rental of 261*l.* a year, term 15 years	1,500
New Cross—2 to 8 even, Chubworthy-street, 76 years, ground-rent 16*l.*	760
14 to 24 even, Chubworthy-street, 76 years, ground-rent 24*l.*	1,100
Clapton—110, Rushmore-road, 91 years, ground-rent 4*l.* 10s.	130

By E. Smith & Co.

Kensington—7, Ovington-square, 39 years, ground-rent 5*l.*	1,900

By G. Dickerson.

Notting Hill—5, Silchester-street, 78 years, ground-rent 6*l.* 10s.	255

July 23.

By Farebrother, Ellis, & Co.

Strand—34, Catherine-street, freehold	1,640
Mile End-road—A ground-rent of 8*l.* a year, with early reversion	760
A ground-rent of 8*l.* a year, with early reversion	840
A ground-rent of 14*l.* a year, with early reversion	475

By Glasier & Sons.

Clapton—53, Cricketfield-road, 73 years, ground-rent 7*l.* 10s.	350
Dalston—42, Montague-road, 75 years, ground-rent 6*l.*	295
Edgware, near—A plot of freehold land, 6a. 3r. 33p.	800
A plot of freehold land, 33a. 1r. 19p.	3,800
A plot of freehold land, 23a. 3r. 11p.	1,400

By Messrs. Flood.

Chelsea—16, Markham-square, 80 years, ground-rent 8*l.* 18s. 8d.	590
Paddington—43, Chippenham-road,, 78 years, ground-rent 4*l.*	1,035
45, Chippenham-road, 78 years, ground-rent 4*l.*	1,020

By Giddy & Turner.

Putney—212, Upper Richmond-road, 76 years, ground-rent 6*l.*	520

By Newberry & Co.

South Norwood—Ground-rents of 27*l.* 10s., reversion in 95 years	400
Ground rents of 47*l.* 10s., reversion in 86 years	1,020
Ground-rents of 11*l.*, reversion in 53 years	230
Five plots of freehold land	6.5

By C. C. & T. Moore.

Mile End—61 to 73 odd, Bridge-street, 22 years, ground-rent 28*l.*	930
Dagenham—Two freehold houses	620
Bow—19 and 21, Caxton-street, 66 years, ground-rent 9*l.*	650

By Debenham, Tewson, & Co.

Hanwell—A plot of freehold land, 0a. 3r. 13p.	810
Stoke Newington—147, Church-street, copyhold	300
1 to 4, Elizabeth-terrace, 33 years, ground-rent 8*l.*	595

By Newbon & Harding.

Green-lanes—2, Stanley Villas, 97 years, ground-rent 8*l.*	440
Islington 172a, 174 to 184 even, Holloway-road, freehold	4,800
Homerton—100 and 102, Digby-road, 73 years, ground-rent 9*l.*	300

July 24.

By Baker & Sons.

Rudgwick, Sussex—"Hermonger's Park," 274 acres, freehold	12,000
Hampstead—6, Albion-terrace, freehold	290

By F. Lewis & Co.

Blackheath—A ground-rent of 25*l.*, term 40 years, with reversion to rack-rents for 33 years	550
A ground-rent of 25*l.*, term 40 years, with reversion to rack-rents for 33 years	550

By Wood & Spink.

Holborn—20, East-st., the lease of, term 30 years	330

By G. A. Wilkinson.

City—8, Newgate-street, freehold	7,500
10, Warwick-square, freehold	2,490
Finsbury—Ground-rent of 58*l.* 8s., reversion in 27 years	2,450
Ground-rent of 8*l.*, reversion in 34 years	300
Barnsbury—30, Albion-grove, 59 years, ground-rent 3*l.* 10s.	555
Brixton—94 and 96, Loughborough-road, 37 years, ground-rent 12*l.*	725
Austin Friars, E.C.—Land-tax of 12*l.* 15s. a year	320

By Messrs. Cobb.

Meopham Green—A plot of freehold land, 1a. 2r. 17 p.	190
A plot of freehold land, 5a. 2r. 32p.	220

By W. B. Hallett.

Holloway—1 and 3, Davenant-road, 73 years, ground-rent 13*l.*	510
7, Davenant-road, 73 years, ground-rent 6*l.* 10s.	255
Highbury—32, Hamilton-road, 72 years, ground-rent 7*l.* 10s.	
St. Pancras—A profit rental of 49*l.* a year, term 21 years	380
Tottenham-court-road—9, Francis-street, the lease of	50
Upper Holloway—21, Wedmore-street, 25 years, ground-rent 10*l.*	80

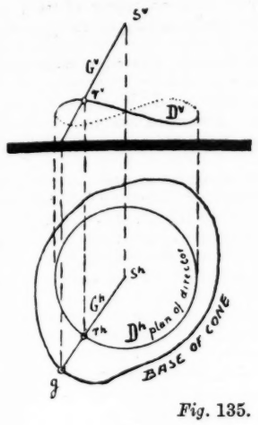


Fig. 135.

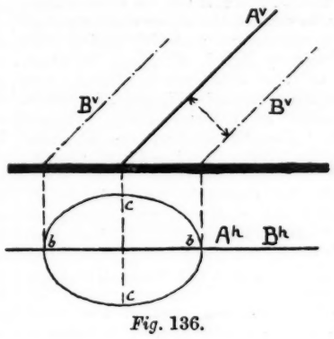


Fig. 136.

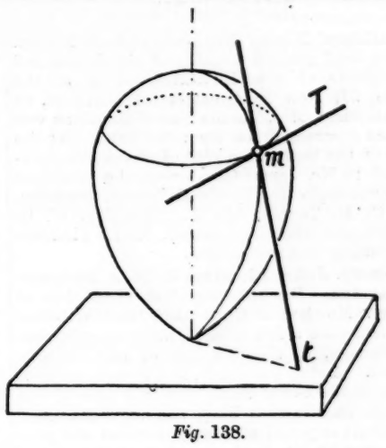


Fig. 138.

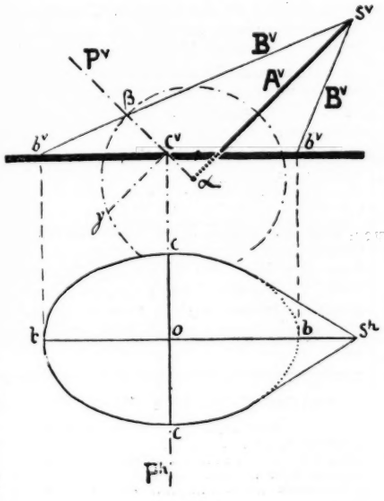


Fig. 137.

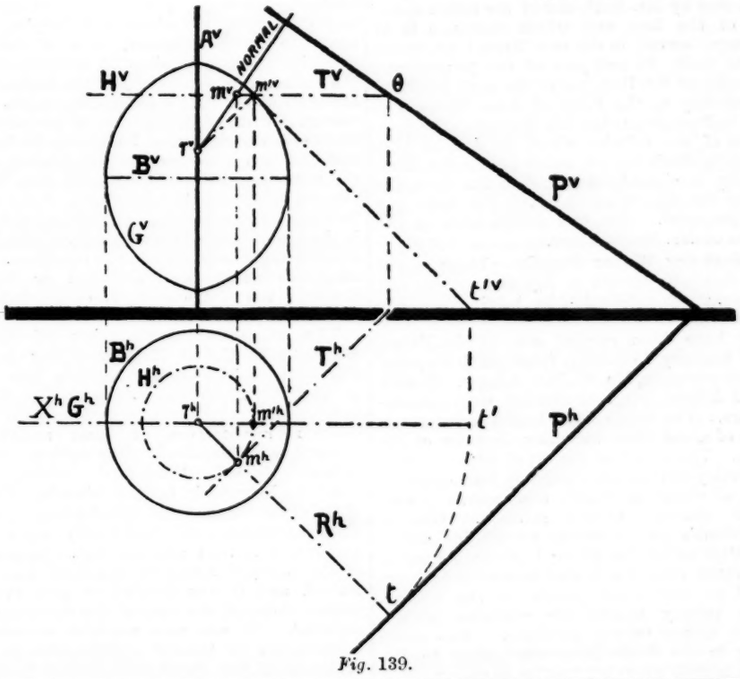


Fig. 139.

The Student's Column.

DESCRIPTIVE GEOMETRY.—Part II.

X.

If a cone be given by its apex S *and a directing line* D *in space, find its base.*

We take on the directing line a point *r*, through the elevation and plan of which we draw G^v and G^h, the projections of a generator of the cone, and the point *g* the foot of the generator belongs to the base of the cone which is of irregular shape. (See fig. 135.)

Find the base of a cylinder of revolution given by its axis A *and its radius.*

We first make a new elevation of the cylinder so that its axis be parallel to the elevation plane. We know that the base is an ellipsis, for it is the intersection of a right cylinder by a plane. The major axis of the ellipsis is *b b*, the minor axis is *c c*, equal to the diameter of the cylinder. (See fig. 136.)

Find the base of a cone of revolution (right cone) given by its axis A, *and the angle the generators form with the axis.*

According to the inclination of the axis, the base of the cone might be any of the three conic sections, ellipsis, hyperbola, or parabola. All three bases can be found by first drawing the projections of the circular section formed by a plane perpendicular to the axis of the cone, and then, using that circular section as a directing line, we can find the base of the cone as we did in fig. 135. When the section is an ellipsis a much shorter operation is feasible, we make a new elevation of the cone on a plane parallel to the axis A, on which we draw the outlines B B. Thus we have at once the major axis *bb* of the ellipsis, in the centre, O, of which we have only to find the minor axis, *cc*, to be able to complete the base. If we consider *cc* as the horizontal trace of a plane P perpendicular to the axis A, we know it will cut the cone according to a radius $a\beta$, and therefore $c^v\gamma$ will be the length of half the minor axis, which we have only to carry in O C, for $C^v\,\gamma$ is the intersection of the circle on plane P by the plane of the plan. (See fig. 137.)

Surfaces of revolution.

Surfaces of revolution are, with the exception of planes, the surfaces most commonly used in architecture, as columns, cupolas, vaults; it is therefore highly important for us to master the methods to deal with them, either for delineating their shades and shadows, or for setting out masonry, carpenters and joiners' work relating to them.

Draw a surface of revolution, a plane tangent to it in the point, m, and also a normal (perpendicular line) to the surface in the same point.

We shall assume that the axis of the surface be vertical. If it be not, we can make it so by changing the projection planes.

If we carry through the axis a vertical plane, X, parallel to the elevation, the section G made by that plane is a meridian of the surface, and we have it in its real shape on the outline of the elevation. Every horizontal section of the surface will have a straight line, H^v, for its elevation, and a circle, H^h, for its plan. These horizontal sections of the surface of revolution are called parallels; such are, for instance, the degrees of latitude of the earth's surface. B, the largest of these parallels, gives the outline of the revolving surface on the plan, and any plane tangent to a point thereon is vertical.

If *m* be a point of the surface, given m^h we shall be able to find m^v by the following method:—We revolve round the axis the plane R of the meridian on which *m* is situated until it be parallel to the elevation; m^h will reach m'^h by an arc of a circle; m'^v will be on the meridian and on a vertical line above m'^h; this determines m'^v. When we revolve back the meridian to its former position m'^v travels along a horizontal line, and we can mark thereon m^v. (See fig. 139.)

We find the plane P tangent to the surface in the point *m*, by taking through *m* two curves of the surface and the tangent to each curve in that point. P is the plane which contains these two tangents. (See perspective sketch, fig. 138.)

The curves selected are the parallel and the meridian. The tangent T to the parallel is horizontal, and its plan is tangent to circle H^h; as the line T is contained by the plane P, we know that P^h will be parallel to T^h. If we revolve the meridian R and make it parallel to the elevation, we shall find the elevation of the tangent to the meridian will fall on $m'^v\ t'^v$, revolving back we find *t* the foot of the tangent to the meridian. We can now draw P^h, for it passes through *t*, foot of the tangent to the meridian, and is parallel to T^h, plan of the tangent to the parallel or horizontal section. We can draw also P^v as it passes through the point θ, where the tangent T enters the surface of the elevation.

A *normal* to the surface in the point *m* is a line passing through *m*, and perpendicular to the plane P tangent to the surface in that point; it is the position that the joints of the stones of a vault should have, and therefore of importance to us.

The normal to the surface is contained in the meridian plane R, and therefore cuts the axis; it is also evident that the normals to the points all along the same parallel will all cut the axis in the same point. To draw the projections of the normal in *m*, we need only draw the line $m'^v\,r^v$ perpendicular to the meridian outline, and then join r^v to m^v; the line $r^v\,m^v$ will be the elevation of the normal, and its plan falls on R^h. (See fig. 139.)

Miscellanea.

Builders' Clerks' Benevolent Institution. At a special general meeting of the donors and subscribers of this Institution, held at the offices, 21, New Bridge-street, Blackfriars, on Tuesday last, Mrs. Martha Emma Hamilton was elected a pensioner on the relief fund. At the close of the business a vote of thanks was presented to Mr. James Greenwood, the president (who was supported by Mr. E. Brooks, treasurer, Mr. C. K. Turpin, Mr. E. Pitts, Mr. W. D. Gilbert, and other gentlemen), for his kindness in presiding on the occasion.

Messrs. John Mowlem & Co.'s Summer Excursion.—On Saturday last, about 190 of Messrs. Mowlem & Co.'s staff and out-door foremen, with a few friends, made an excursion to Swanage, by the new line of rail recently opened. A stop was made, and a visit paid, *en route*, to the castle ruins at Corfe (one of the stations on the new line), and at Swanage a steamboat trip and a dinner, provided and presided over by Mr. Burt, one of the senior members of the firm, and whose residence is at Swanage, served in the new Town Hall, which he has built, formed part of the programme. At the latter Mr. Hall, one of the staff, proposed "Prosperity to the Firm of John Mowlem & Co.," and congratulated Mr. Burt upon the completion of the railway which he had so long striven to obtain for his native town. Mr. Burt, in reply, expressed, on behalf of the firm, his thanks for the terms in which the toast had been proposed. Tea was served later in the garden of Mr. Burt's house.

Wanstrow Water Supply.—These works were formally opened a few days since, and the event was celebrated by holding a public tea meeting in a field near the church. The works have been carried out by the Frome Rural Sanitary Authority, from plans prepared by their surveyor, Mr. William Adams. Messrs. Wilcox & Sons, Leigh-on-Mendip, were the contractors. The works have been carried out at a cost of about 500*l.*, including the price of the spring. The water is conveyed from a spring on Dursley-hill to the village by 3-in. cast-iron pipes, all coated externally and internally with Dr. A. Smith's patent solution. One of Macfarlane's patent drinking fountains, with a tap fitted under, for filling buckets, is fixed at the Bruton cross-roads, and four other taps are placed at convenient points in the village. About twenty houses are provided with a private supply on the premises. The cattle supply in the fields from the spring to the village is well provided for, by having nine of Macfarlane's patent water-troughs fixed on brick piers, with self-acting ball-taps.

Brighton.—In the article upon the growth of Brighton, in the last week's number of the *Builder*, p. 111, it should have been stated that the system of groynes for the protection of the shore, now adopted by the Corporation, is that of Mr. A. Dowson, C.E., the principle of which is the substitution of open groynes instead of the usual solid ones. These latter obstruct the sea so as almost invariably to cause a backwash, which may carry away in one tide the shingle accumulated during several months. Another advantage of Mr. Dowson's groynes is that they can be put up very rapidly, while they cost much less than those under the old system.

Birmingham Architectural Association. The members of the above Association made a visit on Saturday last to the new church now in course of erection in Bristol-street, Birmingham. Among the members present were Messrs. J. P. Osborne, W. H. Kendrick, T. W. F. Newton, A. Hall, Franklin Cross, H. H. McConnal, W. G. Mantle, J. Goodman, several visitors, and Victor Scruton (hon. sec.). In the unavoidable absence of the architect (Mr. J. Cossins), the clerk of works, Mr. H. Hackett, exhibited the drawings, and, with Mr. Sapcote, conducted the members over the church, congregational room, and classrooms, &c.

District Surveyors. — The Works and General Purposes Committee of the Metropolitan Board of Works have put the following recommendation on the paper of business for the consideration of the Board at its meeting this Friday, July 31st, viz.,—"That the new District Surveyors for the Northern Division of St. Marylebone, and for Bethnal-green East and South Bow, shall be prohibited from carrying on the business of an Architect or Surveyor for works within the boundaries of their own districts."

Employers and Employed.—At the Crystal Palace on Saturday, July 25, a dinner was given by Messrs. Hobbs, Hart, & Co., on the occasion of what may be termed the silver wedding since Mr. Hobbs's retirement and the taking over of the business by Mr. J. M. Hart, by whom the whole of the staff were invited, and mustered to the extent of 327, and 25 visitors. After the usual loyal toasts, there followed the toast of "The Founder of our Business at the Great Exhibition, 1851,—Alfred Charles Hobbs, esq." The chairman (Mr. Hart) exhorted all the *employés* to maintain in strict integrity the motto or trade-mark of the firm, "Protectors and Progress," so that the name of Hobbs & Co. shall be accepted like sterling metal throughout the world. The toast of "The Executive Staff" was proposed by the chairman, who remarked that it was most gratifying to him to render honour to those to whom honour was due, and earnestly impressed on them to follow the lines laid down as a basis with the establishment and development of the business,—namely, "perfection of construction in its integrity of scientific principles," and never to accept business, even of the most lucrative character, unless in accordance with the teachings of experience in the highest class of construction. He reminded the heads of the executive staff, as an example, of his refusal to tender for a strong-room, 50 ft. long, 10 ft. high, and 12 ft. deep, because the principles on which the room was to be constructed were totally impracticable; and he offered 500*l.* if any manufacturer could construct the room as laid down in the specification by a shipbuilder with keyed rebated angles as shown in the drawings. This offer has never been accepted or refused, although the offer was made on December 24 last, and still remains open.

The National Association of Master Builders of Great Britain.—This Association held its half-yearly meeting last week at the Royal Hotel, Bristol. Mr. W. H. Cowlin, the president, presided, and there were representatives of local associations present from Bradford, Birmingham, Bristol, Bolton, Cardiff, Doncaster, Derby, Hull, London, Liverpool, Leeds, Lincoln, Walsall, Warrington. After the introductory remarks of the president, the half-yearly report and accounts were read and adopted. An account of the masons' strike at Bradford was submitted, and it was decided to give the employers there all the support the circumstances required. It was also resolved to ask the Government to receive a deputation to give evidence on the Royal Commission to be appointed to consider the general depression of trade. In the evening the representatives were entertained at a banquet by the Bristol Master Builders' Association, and on Wednesday they accompanied the members on the annual excursion, and spent a most enjoyable day in the Valley of the Wye and Dean Forest.

A Birthday Commemoration. — In celebration of the eightieth birthday of Mr. Joseph Edge, of the well-known firm of Malkin, Edge, & Co., of Burslem, about 300 of the *employés* of the firm recently had an excursion to Rudyard, where they were entertained by the firm. In the course of the day Mr. Edge was presented, by Mr. William Steele, on behalf of the men, with an album containing the photographs of all his workpeople, and bearing the following inscription:—"Presented to Joseph Edge, esq., J.P., on his attaining his eightieth birthday, by the *employés* of the Newport Earthenware and Tile Works, as a token of their respect and high esteem, and for his benevolent character and invariable kindness." Mr. Edge has pursued a most active and useful career, and we join with his *employés* in wishing him "many happy returns of the day."

Liverpool Architectural Society.—The fifth meeting of the Junior Debating Club in connexion with this Society was held at the Rooms, Cook-street, on Monday last, Mr. Richard Holt in the chair. Mr. E. Percy Hinde read a paper on "Architectural Education." Messrs. Hikins, Rathbone, Mercer, Field, Nicholson, and the Chairman joined in the discussion that followed. It was announced that the next meeting would take place on August 10th, when Mr. James Dod (visitor) will read a paper on the "Box-Sextant, and some of its uses."

Cabmen's Shelter Fund.—We understand that the thirty-seventh shelter of the Cabmen's Shelter Fund, situate in Piccadilly (opposite Clarges-street) was declared open on Thursday at 5.30 p.m. by the Baroness Burdett Coutts.

Freckenham (Suffolk).—On December 29th, 1882, the lofty ancient tower of this church gave way, the whole falling to the ground, and causing damage also to other portions of the fabric. The damage has now been repaired, and the tower gradually re-erected, its completion being celebrated by a special service on the 14th inst. The work has been ably carried out, at a cost somewhat exceeding 1,000*l.*, by Messrs. Rattee & Kett, of Cambridge, from the drawings and under the superintendence of Mr. J. Drayton Wyatt, of Holloway, London, the consulting architect to the Church-building Society of the Archdeaconry. As much as possible of the old materials and details have been re-used, and the original design of the tower has in all respects been faithfully adhered to. Towards insuring this result some photographs of the previous work, which fortunately existed, proved very serviceable. The west window has now been filled with stained glass, in memory of the late rector, by his five surviving children.

Proposed Changes at the Guildhall.—It is proposed to reconstruct the whole of the offices for the permanent staff at the Guildhall, and to erect a new chamber for the Court of Aldermen. A proposal to this effect will shortly be submitted to the Court of Common Council. The scheme will involve an expenditure of a sum little short of 150,000*l.*—*City Press.*

Faulkbourn (Essex).—Funds are being raised for the restoration of the little parish church here. The interior is stated to be in a very dilapidated condition, while there are settlements in two or three places. Plans for the necessary works have been prepared by Mr. A. W. Blomfield, M.A. The estimated cost is 1,100*l.*

The Proposed New Law Court for the City.—The *City Press* states that a deputation from the Law and City Courts Committee is about to visit the County Courts in some of the principal towns, with a view to getting information which may assist them in drawing up plans for the new City of London Court.

PRICES CURRENT OF MATERIALS.

TIMBER.	£.	s.	d.	£.	s.	d.
Greenheart, B.G. ....ton	6	10	0	7	10	0
Teak, E.I. ....load	12	10	0	15	10	0
Sequoia, U.S. ....ft. cube	0	2	6	0	2	9
Ash, Canada ....load	3	0	0	5	0	0
Birch ,, ...	3	0	0	4	10	0
Elm ,, ...	3	10	0	5	0	0
Fir, Dantsic, &c.	1	10	0	4	10	0
Oak ,, ...	3	0	0	5	0	0
Canada	6	0	0	7	0	0
Pine ,, red	3	0	0	4	0	0
,, yellow	3	15	0	5	5	0
Lath, Dantsic ....fathom	5	0	0	6	0	0
St. Petersburg	5	0	0	7	0	0
Wainscot, Riga....log	3	0	0	4	10	0
Deals, Finland, 2nd and 1st...std.	8	0	0	9	0	0
,, 4th and 3rd	6	10	0	7	10	0
Riga	7	0	0	8	10	0
St. Petersburg, 1st yel.	10	0	0	17	0	0
,, 2nd ,, ...	8	0	0	9	15	0
,, white	7	0	0	11	0	0
Swedish....	7	0	0	17	0	0
White Sea	8	10	0	19	0	0
Canada, Pine 1st	18	0	0	32	10	0
,, 2nd	12	0	0	18	10	0
,, 3rd, &c.	7	0	0	10	10	0
,, Spruce 1st	9	0	0	12	0	0
,, 3rd and 2nd	6	10	0	8	0	0
New Brunswick, &c....	5	0	0	7	10	0
Battens, all kinds	4	0	0	13	0	0
Flooring Boards, sq. 1 in.—Prepared, first	0	9	0	0	13	0
Second	0	7	6	0	8	6
Other qualities	0	5	0	0	7	0
Cedar, Cuba....foot	0	0	3½	0	0	4
Honduras, &c.	0	0	3	0	0	4
Australian	0	0	3	0	0	3½
Mahogany, Cuba	0	0	5	0	0	7½
St. Domingo cargo av.	0	0	5½	0	0	7½
Mexican ,, ...	0	0	4	0	0	5
Tobasco ,, ...	0	0	4½	0	0	6½
Honduras ,, ...	0	0	4½	0	0	6½
Rose, Rio ....ton	7	0	0	17	0	0
Bahia....	7	0	0	16	0	0
Satin, St. Domingo .... ft.	0	0	8	0	1	0
Porto Rico	0	0	8	0	1	3
Walnut, Italian	0	0	4	0	0	5
METALS.						
Iron—Pig in Scotland ....ton	2	0	9	0	0	0
Bar, Welsh, in London....	5	0	0	5	7	6
,, ,, in Wales	4	12	6	4	17	6
,, Staffordshire, London	6	0	0	7	0	0
Sheets, single, in London....	7	10	0	9	0	0
Hoops ,, ...	7	0	0	8	0	0
Nail-rods ,, ...	6	0	0	7	0	0
Copper—						
British, cke. and ingt. ....ton	47	10	0	48	10	0
Best selected	48	10	0	49	0	0
Sheets, strong....	55	10	0	56	0	0
,, India	52	10	0	53	0	0
Australian, fine cash....	54	10	0	56	0	0
Chili, bars ,, ...	43	17	6	44	5	0
Yellow Metal....lb.	0	0	4½	0	0	4½
Lead—Pig, Spanish	12	5	0	0	0	0
English, com. brands	12	12	6	0	0	0
Spelter—						
Silesian, special ....ton	13	7	6	14	0	0
Ordinary brands	13	12	6	13	15	0

METALS (*continued*).	£. s. d.	£. s. d.
TIN—		
Straits	94 0 0	94 10 0
Australian	94 0 0	94 10 0
English ingots	96 0 0	0 0 0
TINPLATES—		
IC coke ....box	14 6 0	16 6 0
IX ditto	21 0 0	25 0 0
IC charcoal	17 0 0	20 0 0
IX ditto	26 0 0	27 0 0
OILS.		
Linseed ....ton	23 0 0	23 10 0
Cocoanut, Cochin	32 10 0	0 0 0
Ceylon	27 10 0	0 0 0

OILS (*continued*).	£. s. d.	£. s. d.
Copra	26 0 0	26 10 0
Palm, Lagos	29 10 0	30 0 0
Palm-nut Kernel	26 10 0	0 0 0
Rapeseed, English pale	25 10 0	26 0 0
,, brown	24 0 0	0 0 0
Cottonseed, refined	22 0 0	23 10 0
Tallow and Oleine	25 0 0	45 0 0
Lubricating, U.S.	7 0 0	10 0 0
,, Refined	8 0 0	15 0 0
TURPENTINE—		
American, in cks. ....cwt.	1 9 3	0 0 0
TAR—Stockholm ....brl.	1 2 0	1 2 6
Archangel	0 14 0	0 14 6

COMPETITIONS, CONTRACTS, & PUBLIC APPOINTMENTS.

Epitome of Advertisements in this Number.

COMPETITIONS.

Nature of Work.	By whom required.	Premium.	Designs to be delivered.	Page.
Design for Vestry Hall and Offices	Parish of Fulham	75 gs., 50 gs., and 25 gs.	Nov. 2nd	ii.
Plans for a Library	Penzance Library Com.	Not stated	Not stated	i.
Church at Grove Park, Kent	J. A. Hilliard, per Com.	do.	do.	ii.

CONTRACTS.

Nature of Work, or Materials.	By whom required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.	Page.
Brick Sewer and other Works	Willesden Local Board	O. Claude Robson	August 5th	xxvi.
Pipe Sewers, Manholes, &c.	do.	do.	do.	xxvi.
Road-making and Paving	Fulham Board of Wks.	*Official*	do.	ii.
Houses at Walworth	.....	Lansdown & Harriss	August 6th	ii.
Outside Repairs, &c., at School, Workhouse, and Offices	Mile End Guardians	J. M. Knight	do.	ii.
Wheel Shop at Derby, several cottages, &c.	Midland Railway Co.	*Official*	August 7th	ii.
Cast-Iron Socket Pipes	Oxford City Waterwrks	T. & C. Hawksley	August 8th	ii.
Free Library, Museum, &c.	Bootle-cum Linacre Cor.	*Official*	August 11th	ii.
Stop-Cocks, Ferrules, and Surface Boxes	Southampton Corporatn	W. Matthews	do.	ii.
Pit Flints, &c.	Southgate Local Board	*Official*	do.	ii.
Sewering and Forming Roads at Meadvale	Reigate U. S. A.	— Hornibrook	do.	xxvi.
Trap or Granite	do.	do.	do.	xxvi.
Pumping-Engines, Boilers, &c.	Petersfield Guardians	H. Robinson	do.	ii.
Engine and Boiler House, &c.	do.	do.	do.	ii.
Erection of Three Houses	C. Chambers	*Official*	do.	ii.
Reconstruction in Masonry of Piers of the Usk Viaduct	Great Western Ry. Co.	do.	August 12th	ii.
Additional Story at Patent Office	Com. of H.M. Works	do.	do.	ii.
Drainage Works	Haverfordwest U. S. A.	E. Cousins & Son	August 13th	xxvii.
Rebuilding Beckenham Village Bridge	Kent Justices of the Peace	*Official*	do.	ii.
Sewerage Works	Friern Barnet U.S.A.	Baldwin Latham	August 25th	ii.
New Science and Art Museum and National Library, Dublin	Dublin Bd. of Public Wks	T. N. Deane & Son	Sept. 2nd	ii.
Restoration of Spire, Woodford Church	.....	J. C. Traylen	Not stated	xxvi.
House, &c., at Towcester	A. P. Kingcombe, Esq.	S. J. Newman	do.	xxvii.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.	Page.
Surveyors, Marylebone, Bethnal Green, Bow	Met. Board of Works	Not stated	August 5th	xvi.
Inspector of Nuisances and Surveyor	Bridgnorth Un. R. S. A.	109*l.* 4*s.*	August 7th	xvi.
Working Foreman	Worsbro' Lcl. Gov. Bd.	Not stated	August 10th	xvi.

TENDERS.

For alterations and additions to Mr. W. F. Waight's premises, Codicote, Herts. Mr. F. Taperell, architect, London :—

Warren, Stevenage	£1,573 0 0
William & Son, London	1,486 0 0
Ransom, Knebworth	1,469 17 6

Amended tenders for the above :—

Warren	£1,310 0 0
Ransom	1,234 0 0
Williams & Son (accepted)	1,220 0 0

For camp-shedding and barge bed at Westferry-road, Millwall, for Mr. J. T. Morton, under the superintendence of Mr. William Eve, Union-court, Old Broad-street, E.C. :—

Brass & Son	£978 0 0
Higgs	820 0 0
Lawrence	800 0 0
Salt	800 0 0
Shurmur	799 0 0
Downs	700 0 0
Harris & Wardrop (accepted)	530 0 0

For the erection of a warehouse and two houses at Higham Ferrers, for Mr. O. Patenall. Mr. H. A. Cooper, architect, Kettering. Quantities supplied by the architect :—

A. Halford	£659 9 0
A. Barlow	625 0 0
C. Bayes	610 0 0
E. & F. Henson	600 0 0
H. F. Henson	577 4 3
S. Abbott	524 0 0
J. Allen (accepted)	495 0 0

For the erection of three cottages at Higham Ferrers, for Mr. T. Gadsby. Mr. H. A. Cooper, architect :—

C. Bayes	443 0 0
A. Halford	425 0 0
S. Abbott	420 0 0
J. Allen (accepted)	386 0 0

For the erection of new villa residence, "Burlingham," at Chislehurst. Mr. C. H. M. Mileham, architect. Quantities supplied :—

Crossley	£2,230 0 0
Dove Bros.	2,190 0 0
Holloway Bros. (accepted)	2,172 0 0
Lowe	2,145 0 0

For the erection of two houses in Hawthorn-road, Kettering, for Mr. Thos. Joyner. Mr. H. A. Cooper, architect. Quantities supplied by the architect :—

S. Bamford	£440 0 0
Manby & Coltman	439 0 0
A. Barlow	425 0 0
T. Farey	420 10 0
C. & F. Henson	420 0 0
H. F. Henson	420 0 0
Dickens & Mutton	415 0 0
C. Sharman	393 0 0
S. Hulks (accepted)	389 0 0

For the erection of new villa residence, "Smallfield," at Chislehurst. Mr. C. H. M. Mileham, architect. Quantities supplied :—

Dove	£1,845 0 0
Lowe	1,802 0 0
Crossley	1,628 0 0
Holloway Bros. (accepted)	1,586 0 0

For rebuilding casual wards, Union Workhouse, Monmouth. Messrs. Muggeridge & Powell, architects :—

Chas. Morgan	£339 14 0
Wm. Simmonds	335 10 0

For repairs to No. 2, Blackfriars-road, S.E., for Mr. Robert H. Barnes. Mr. H. I. Newton, architect :—

Lamble	£315 0 0
Walker	300 10 0
Dixon & Jones	288 0 0
B. Cook	287 0 0

For painting and repairs to houses in Lyndhurst-grove, Peckham, under the direction of Mr. Alfred Ebbs :—

C. W. Reading	£225 15 0
W. Langridge & Sons	213 6 0
Puzey & Lumley (accepted)	201 10 0

For alterations at the "Lilliput Arms," Victoria Dock-road, Canning Town, for Mr. Curtis. Mr. Aston, architect, Forest Gate :—

Whyte	£847 0 0
Earl & Sons	749 0 0
Nicholls	655 0 0
Buckle, Stratford (accepted)	650 0 0

For the erection of a cottage at Higham Ferrers, for Mr. Geo. Hartwell. Mr. H. A. Cooper, architect :—

C. Bayes	£186 0 0
S. Abbott	185 6 0
A. Halford	175 10 0
J. Allen (accepted)	164 4 0

For new premises, Dale End, Birmingham, for Mr. S. Mason. Mr. Oliver Essex, architect :—

Wm. Bloore	£4,950 0 0
J. Bowen	4,753 0 0
Barnsley & Sons	4,475 0 0
Whitehouse & Jones	4,379 0 0
W. T. Bennett	4,297 0 0
W. Robinson	4,280 0 0
T. Rowbotham	3,947 0 0
J. Hartley	3,897 0 0
Horsley Bros. (accepted)	3,838 0 0

For alterations, repairs, and new buildings at Cressex Farm, High Wycombe, for the Right Hon. Lord Carington. Mr. J. Carter Jonas, surveyor, Cambridge :—

	First Contract.	Second Contract.
C. H. Hunt	£698 0 0	£92 0 0
Geo. Gibson	663 0 0	110 15 0
Loosely	650 0 0	92 17 0
H. Harris	522 12 0	84 10 0

For making new roads and laying down pipe sewers on the Berrymead Estate, Acton, for the Berkshire Estate Company (Limited) :—

Tallor	£2,670 15 0
Nowell & Robson	2,478 0 0
Neave & Son	2,473 0 0
Trehearne	2,412 0 0
Wimpey	2,325 0 0
Adams	2,291 0 0
Trueman	2,220 0 0
Bell	2,138 0 0
Cook & Co.	2,103 0 0
Catley	2,090 0 0
Snee	1,992 18 0
Nichols	1,977 0 0
Hill	1,877 17 0
Rowland Brothers	1,868 0 0
Pizzey	1,865 0 0
Saunders	1,733 0 0

For completing works according to original specification, with certain additions, at the St. James's Baths and Washhouses, Marshall-street, W. :—

Scrivener	£1,200 0 0
Foxley	1,197 0 0
MacIntosh	1,070 0 0
Braid	920 0 0
Knight	875 0 0
Beach (accepted)	740 0 0

For additions to dwelling-house, No. 51, Keyford, Frome, for Mr. Charles Case. Mr. W. George Brown, architect :—

Barnes & Son	£1,326 10 0
T. Parfitt & Son	1,046 0 0
F. J. Seward (accepted)	950 0 0

[All of Frome.]

For new shop and bakehouse, at No. 75, Broadway, Frome, for Messrs. J. & T. Baily. Mr. W. George Brown, architect :—

Hodder & Sons	£360 0 0
Barnes & Son	343 0 0
F. J. Seward	340 0 0
F. P. Brown	312 10 0
T. Parfitt & Son (accepted)	305 0 0

[All of Frome.]

For the erection of a carcase at George-street, Croydon, for Mr. W. J. Bacon. Mr. James Webster, architect, Doughty-street, Mecklenburgh-square, W.C. :—

Fenn, Eltham	£720 0 0
Taylor, Croydon	550 0 0
Redman, Brockley	475 0 0
Marriage, Croydon (accepted)	418 0 0

For additions and alterations at No. 113, Albion-road, for Mr. Thos. Whiting, under the superintendence of Mr. William Eve, Union-court, Old Broad-street, E.C. :—

Higgs	£812 0 0
Harris & Wardrop	673 0 0
Aldridge & Jenvey	580 0 0
Salt	543 0 0
Heiser	521 0 0
W. W. Exton (accepted)	467 0 0

For the erection of warehouse, and stabling for 348 horses, at Allen-street, Goswell-road, for Messrs. Carter, Paterson, & Co., under the superintendence of Mr. William Eve, Union-court, Old Broad-street, E.C. :—

General Works.

Messrs. Brass & Son, accepted on schedule of prices.

Iron and Steel Work (except Iron Joists and small Castings).

Moreland & Son (accepted)	£1,700 0 0

For warehouse at Westferry-road, Millwall, for Mr. J. T. Morton, under the superintendence of Mr. William Eve, 10, Union-court, Old Broad-street, E.C. :—

Higgs	3,780 0 0
Brass & Son	3,597 0 0
Shurmur	3,450 0 0
Lawrence	3,323 0 0
Downs	3,093 0 0
Salt	3,091 0 0
Harris & Wardrop (accepted)	3,084 0 0

For house, Church-street, Stoke Newington, for Mr. W. A. Morgan, under the superintendence of Mr. William Eve, Union-court, Old Broad-street, E.C. :—

Jackson & Todd	£797 0 0
Gooddall	759 0 0
Shurmur	749 0 0
Bryan	685 0 0
Harris & Wardrop	684 0 0
Aldridge & Jenvey	650 0 0
Salt	648 0 0
Exton (accepted)	628 0 0

For the enlargement and improvement of Mr. J. Jones's gum paper factory, Peckham-grove, Camberwell, S.E. Mr. Robert P. Whellock, architect, Church-street, Camberwell, S.E. :—

E. Lawrence & Son	£415 0 0
W. Smith	405 0 0
Alex. Mackie (accepted)	348 3 0

For new schools, Catherine-street, City-road, for the London School Board. Mr. T. J. Bailey, architect:—

J. Goodman	£14,830	0	0
W. Brass & Son	14,801	0	0
Atherton & Latta	14,279	0	0
W. Tongue	14,187	0	0
W. Oldrey	14,128	0	0
C. Wall	14,098	0	0
H. L. Holloway	13,961	0	0
Wall Bros.	13,948	0	0
W. Downs	13,898	0	0
W. Shurmur	13,896	0	0
H. Hart	13,884	0	0
J. Holloway	13,850	0	0
W. Johnson	13,774	0	0
Howell & Son	13,716	0	0
J. R. Hunt	13,709	0	0
W. F. & J. Croaker	13,636	0	0
Stimpson & Co.	13,563	0	0
Kirk & Randall	13,331	0	0
S. J. Jerrard	13,200	0	0

For the erection of industrial dwellings in Hanbury-place, Poplar, E., for Mr. W. H. Pettiver. Mr. T. Lawrie, architect, 14, Southampton-street, Strand. Quantities supplied by Mr. H. P. Foster:—

J. Outhwaite & Son	£3,644	0	0
Patman & Fotheringham	3,585	0	0
W. H. Wilkins	3,423	0	0
W. Harris	3,390	0	0
J. O. Richardson	3,210	0	0
W. H. Holland	3,048	0	0

For pulling down and rebuilding two shops and business premises in Culver-street, for Mr. E. Scott, Colchester, proprietor finding all bricks. Mr. J. W. Start, architect, Colchester. Quantities supplied by the architect:—

A. Gladwell	£1,358	0	0
E. Eade	1,188	0	0
H. Ambrose	1,162	18	0
G. Bowles	1,162	0	0
F. Dupont	1,015	0	0
A. Chambers (accepted)	979	0	0

[All of Colchester.]

For pulling down and rebuilding No. 40, Great Prescott-street, Whitechapel. Messrs. Wigg, Oliver, & Son, architects:—

Longmire & Burge	£888	0	0
Sargent	815	0	0
Little	740	0	0
Eaton	719	0	0
Langmead & Way	685	0	0
Exton, Kingsland	650	0	0

For new mission church, Chatsworth-road, Clapton Park. Mr. R. H. Hill, architect:—

Higgs & Hill	2,740	0	0
J. T. Chappell	2,720	0	0
Holloway Bros.	2,663	0	0
J. C. Arnaud & Son	2,596	0	0
D. G. Laing & Son	2,544	0	0
Harris & Wardrop	2,467	0	0
O. Craske	2,457	0	0
B. E. Nightingale	2,448	0	0
W. Shurmur	2,448	0	0

For decorations, &c., at the Freemasons' Tavern, Great Queen-street, W.C., for Messrs. Spiers & Pond. Mr. S. F. Kemp, architect and surveyor:—

W. Read (accepted)	£477	0	0

[No competition.]

For alterations at 38, York-place, Baker-street, for Miss Poplett. Mr. H. J. Treadwell, architect, Agar-street, Strand:—

Fairchild & Co.	£733	0	0
Styles	612	0	0
A. G. Bolding	537	0	0
Turtle & Appleton	489	0	0

For alterations, &c., to stable premises, Kendall-mews. Mr. J. T. Walford, architect:—

				New roof over yard.		
Robertson	£1,708	0	0	£355	0	0
Simpson & Son	1,378	0	0	287	0	0
Cock	1,149	0	0	334	0	0
Turtle & Appleton	1,089	0	0	269	0	0
Bolding	1,067	0	0	259	0	0
Holloway Bros.	1,047	0	0	264	0	0

Accepted for alterations at the "Queen's Arms," Windmill-road, Croydon:—

W. Buckle, Stratford	£200	0	0

Accepted for building shop and house over, adjoining the new "Rodney's Head" public-house, for Mr. J. Wild. Mr. J. Laws, architect, Fellows-road, South Hampstead:—

A. G. Allard, Pentonville	£795	0	0

[No competition.]

Accepted for the erection of Sunday schools and mission hall, for the Parish of St. Mary Magdalene, Addiscombe, Surrey. Mr. D. R. Dale, architect.

Hoare & Sons	£1,400	0	0

[No competition.]

New Bank Offices, Limehouse, for the London and County Banking Company.—Messrs. Holloway Bros., of Victoria Works, Queen's-road, Battersea, write:—"In the list of tenders for the above in your last week's issue, the lowest tender is stated to be by 'J. Holloway'; it should have been *our* name."

SPECIAL NOTICE.—Lists of Tenders frequently reach us too late for insertion. They should be delivered at our Office, 46, Catherine-street, W.C., *not later than Four p.m.* on THURSDAYS.

TO CORRESPONDENTS.

W. de G. B.—W. K.—W. A.—S. H. S.—C. S. (you forget that theatres are built with special regard to acoustic effect, which is interfered with by expanses of window; and as theatres are almost entirely used for night performances, it is not worth while to spoil their acoustics for the sake of windows. Ventilation should be provided in other ways; we quite agree that it is deplorably deficient in most, if not all, London theatres).—Z. X. (it depends entirely on the provisions of the local by-laws).—Short Lengths (we know of no one who makes such pipes; probably you could easily get them made to order).—H. H. & Co.—C. J. F.—A. G.—W. W. E.—H. H. B.—T. G. (we cannot enter into a discussion on the subject).—W. B.—C. B.—O. M. W. S. (received)—"Ignorans" (we should say it would be a very disingenuous proceeding in the case of competition tendering).

All statements of facts, lists of tenders, &c., must be accompanied by the name and address of the sender, not necessarily for publication.

We are compelled to decline pointing out books and giving addresses.

Note.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news-items) which have been duplicated for other journals, are NOT DESIRED.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; all communications relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

PUBLISHER'S NOTICES.

THE INDEX and TITLE-PAGE for Volume XLVIII. (January to June, 1885) were given, as a Supplement, with the Number of July 11th.

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CLOTH CASES for Binding the Numbers are now ready, price 2s. 6d. each; also

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THE FORTY-EIGHTH VOLUME of "The Builder" (bound), price Twelve Shillings and Sixpence.

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DOUGLAS FOURDRINIER, Publisher,
Addressed to No. 46, Catherine-street, W.C.

Advertisements for the current week's issue must reach the Office before THREE o'clock p.m. on THURSDAY.

The Publisher cannot be responsible for DRAWINGS, TESTIMONIALS, &c. left at the Office in reply to Advertisements, and strongly recommends that of the latter COPIES ONLY should be sent.

SPECIAL.—ALTERATIONS in STANDING ADVERTISEMENTS or ORDERS TO DISCONTINUE same, must reach the Office before TEN o'clock on WEDNESDAY mornings.

PERSONS Advertising in "The Builder," may have *Replies addressed to the Office*, 46, Catherine-street, Covent-garden, W.C. *free of charge*. Letters will be forwarded if addressed envelopes are sent, together with sufficient stamps to cover the postage.

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"THE BUILDER" is supplied DIRECT from the Office to residents in any part of the United Kingdom at the rate of 19s. per annum PREPAID. To all parts of Europe and America, 26s. per annum. To India, China, Ceylon, &c. 30s. per annum. Remittances payable to DOUGLAS FOURDRINIER, Publisher, No. 46, Catherine-street, W.C.

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Corsham Down,
And Farleigh Down.
RANDELL, SAUNDERS, & CO., Limited,
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Bath Stone.

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BOX, WILTS. [Advt.

Doulting Freestone.

THE CHELYNCH STONE. The stone from these quarries is known as the "Weather Beds," and is of a very crystalline nature, and undoubtedly one of the most durable stones in England.

THE BRAMBLEDITCH STONE. Is of the same crystalline nature as the Chelynch Stone, but finer in texture, and more suitable for fine moulded work.

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Asphalte.—The Seyssel and Metallic Lava Asphalte Company (Mr. H. Glenn), Office, 38, Poultry, E.C.—The best and cheapest materials for damp courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds, and milk-rooms, granaries, tun-rooms, and terraces. [Advt.

Asphalte.
Seyssel, Patent Metallic Lava, and White Asphaltes.
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